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(THE) ARCHITECTURAL REVIEW

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THE ARCHITECTURAL
REVIEW + MASTERS IN
ART + & VARIOUS BOOKS

PUBLISHERS' DEPARTMENT

BATES & GUILD COMPANY
144 CONGRESS STREET
BOSTON • MASSACHUSETTS

AS a rule, American designers are more fortunate in designing dwellings along Georgian or Colonial precedents than when they go further afield into the early English Elizabethan or Baronial periods. The American architect is also as a rule happier in domestic brickwork than when he undertakes to make formal use of stone as a material. The publishers of THE ARCHITECTURAL REVIEW therefore consider themselves fortunate in inaugurating the year 1914 with a number entirely given to so dignified, consistent, and refined an American dwelling, along lines established by English Gothic feeling, as the country house on Long Island that Trowbridge & Ackerman have recently completed. Within our recollection we do not find another as restrained and distinctive dwelling in this style or material in North America. Therefore is the house not only distinguished of itself, but it is distinguished for its modesty and restraint — traits that are carried, with equal consistency, throughout the architectural handling of the interior and the furnishing of the dwelling; until it assumes, within and without, nearly the ideal character for the dwelling of a gentleman's family, of refined antecedents, and desirous of maintaining a life of some seclusion and comfort in the midst of a spacious and harmonious environment.

In all this, both site and architects have co-operated toward a rarely happy result. Not only is this house of English treatment appropriate to its setting, but particular attention should be directed to the skill with which the architects have established a scheme that, in plan, plane, and contour arrangement, has adapted itself perfectly to grade contours and other local determining conditions. We believe this house will long remain a classic among American dwellings, and it should certainly inaugurate an epoch of appreciative prosperity for its designers.

For February we have undertaken to cope with a practical problem, having solely to do with health conditions in American buildings. In its importance, both as it refers to the health of the American people and the practical convenience and development of the American dwelling and office plan; and, finally, even its effect upon the material prosperity and value of American architecture and real-estate development, we believe the problem to be far-reaching in its results. It has so far resisted, but now all the more demands, a successful solution. Believing the architects of America are those who should demand the changes in legislation needed to bring about improved health facilities, and that they should therefore be informed as to restrictions and interests preventing progress in the directions pointed, we have placed all our text space in February at the disposal of Mr.

J. Pickering Putnam, an architect expert in practical provisions of health, in plumbing regulation and sanitation, in order to comprehensively treat this subject and place it clearly and definitely before our readers. We urge our subscribers to give themselves the benefit of a close study of this article.

The February added plates will continue the American series already inaugurated, and include further English Country Houses.

DURING 1914 THE ARCHITECTURAL REVIEW will maintain the same high standards of selection and reproduction that the magazine has attained during the year just past. As always, it is impossible to forecast the regular plate illustrations of American work to appear in the monthly issues. We can, however, promise our subscribers the photographic illustration of a most unusual dwelling recently completed near Boston — a dwelling as unusual, in its way, as the Trowbridge & Ackerman House on Long Island; the working drawings of the new buildings for the Massachusetts Institute of Technology, some rendered drawings and studies of which we have already recently published; besides the plans and details of several small dwellings; a distinctive private garage; an American church, different in style and type from anything yet published; and two modern office-buildings, shown with unusual completeness and attention to detail. As always, the regular plates will be selected from the best current work by the best American designers.

The publishers can also promise that THE ARCHITECTURAL REVIEW for 1914 will contain more American work than in the year that has passed. The endeavor is always to publish for our subscribers interesting work of any kind and from any country. We believe the progress of the artist demands "free trade" and intercourse in all directions, with all the arts; as well as a free exchange of ideas with all his contemporaries and rivals. Art in any line has never grown under any species of "protection;" although architecture, particularly, is dependent upon the connoisseur and patron, as, without his encouragement and capital, without his orders to fulfil and his ambitions to satisfy, the architect would have little stimulus and no opportunity to develop the best among his latent talents. Where the sculptor or painter may create his art work more or less regardless of his client, — and undiverted by him, — the architect must await the opportunity before he can do more than dream of realizing his ideals; for the architectural drawing is no more the finished building than the written music-text is the opera performance, or the printed play-book the same thing as the acted drama.

The desire to better devotional architecture in America by inspiration, study, and comparison with the best of contemporary standards caused THE ARCHITECTURAL REVIEW to undertake the series of Modern English Churches, with the results that our subscribers have seen during the last two years. Following a similar desire, came the added plates of English Country Houses — and this series, too, we hope to complete within the year to come.

For more than a year have we been gathering American houses, churches, and public buildings for the series of American work announced to follow the completion of these English portfolios — and already have we published some few preliminary designs in all these groups. This year will see very definite progress in these departments; and from material in hand we promise some unusually good work from architects but little known, and from some localities as yet hardly on the "architectural map" of America!

So much dissatisfaction has been aroused in subscribers of architectural magazines by the ceaseless repetition and waste of valuable space in the duplication of identical views of the same architectural subjects, that THE ARCHITECTURAL REVIEW reiterates its policy of refusal of duplicate work already elsewhere illustrated. This policy it has endeavored to maintain for several years past, and has so far succeeded that its subscribers have come to depend upon THE REVIEW giving them fresh material, not before published in other architectural papers. It is, of course, impossible for its editors to prevent other magazines pirating important work under arrangement, or process of publication. The publication of Messrs. York & Sawyer's Guaranty Trust Company Building had been arranged with architects and owners months before the building's completion made it possible to obtain authoritative and carefully made photographs — and during that period two other architectural magazines published unauthorized views of the incomplete exterior! Nevertheless, its final and definite publication centered about the illustrations in our July issue.

The publishers of THE REVIEW also cannot prevent other magazines printing matter that has once received complete consideration on our pages; but no subscriber to THE REVIEW need hesitate to renew his subscription because of a fear that from a quarter to half the year's plates will be valueless because they will duplicate work in other architectural magazines — as has been the case in some notable instances the past year. We never undertake to publish a subject in THE ARCHITECTURAL REVIEW until it can be given an authorized, adequate, and complete showing; and therefore are our illustrations known to be authentic and authoritative.



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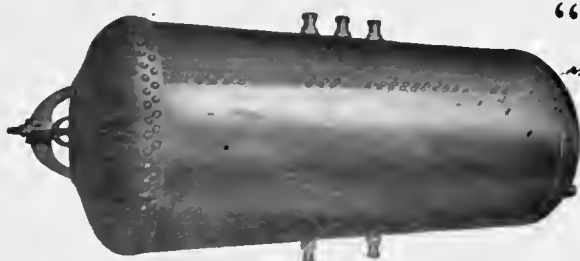
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The Architectural Review

Volume III (Old Series, Vol. XX)

January, 1914

Number I

A Residence at Glen Cove, Long Island

By Trowbridge & Ackerman, Architects

UPON an eminence overlooking the Sound at Glen Cove, L. I., lies the large property known as the Pratt Estate, owned and occupied in common by seven families,—children and grandchildren of the late Charles M. Pratt. Killenworth is built upon that portion of the estate which belongs individually to Mr. George D. Pratt. It commands extensive views over Long Island Sound to the north, and intimate vistas of charming lawns, rare trees, and first-growth forests to the south and east. The house is placed upon the highest point of Mr. Pratt's property, and is fitted to a ground which in part is sloping. At the western end of this property stands a small hill, upon which a water-tower is placed for supplying all of the houses and service buildings of the estate. This tower was built many years ago, at a time when it was not considered an unpardonable sin to imitate mediæval battle-mented architecture in shingles. Owing to the nearness of the tower, and its incongruity with any architectural style suitable for Killenworth, there arose at an early date the necessity of hiding the tower by planting and other means. Because of that, and other difficulties such as the unusual grade conditions, the planning of Killenworth proved to be a problem of the greatest and most varied interest.

In the summer of 1910 the owners, having decided to tear down their wooden house and construct a residence of enduring materials, gave their architects the unusual privilege of occupying the house during the month of August while the family was away. This sojourn in midsummer upon the exact spot whereon it was proposed to place the new house was of incalculable value in enabling the designers to become intimately acquainted with the local governing conditions. There were charming near-by vistas to be conserved. A superb panoramic water view toward the north was a feature of

supreme importance. The prevailing breezes and the position of the sun had to be reckoned with, while the varying grades had more to do with the development of the general plan than any other condition. Upon the return of Mr. and Mrs. Pratt it was possible to agree upon a tentative program, the essentials of which were determined by the owners as a result of fifteen years' occupation of the premises and confirmed by the architects after their practical experience on the site. It was agreed that:

1. The Porch should be at the western end of the house, and placed so as to allow the prevailing southern breezes to pass directly through from side to side.
2. The Living-room should adjoin the Porch. The direction of the long axis of this room was not fixed.
3. The Dining-room should be placed relatively in the same position as that in which the old dining-room was placed; i. e., on the north-east corner of the site, in order to gain to the fullest the view of Long Island Sound, the early morning sun, and the late afternoon sun.

4. The Entrance should be at the eastern end, toward the public thoroughfare,—Dosoris Lane. This is the side having ostensibly the least amount of privacy for the family life.

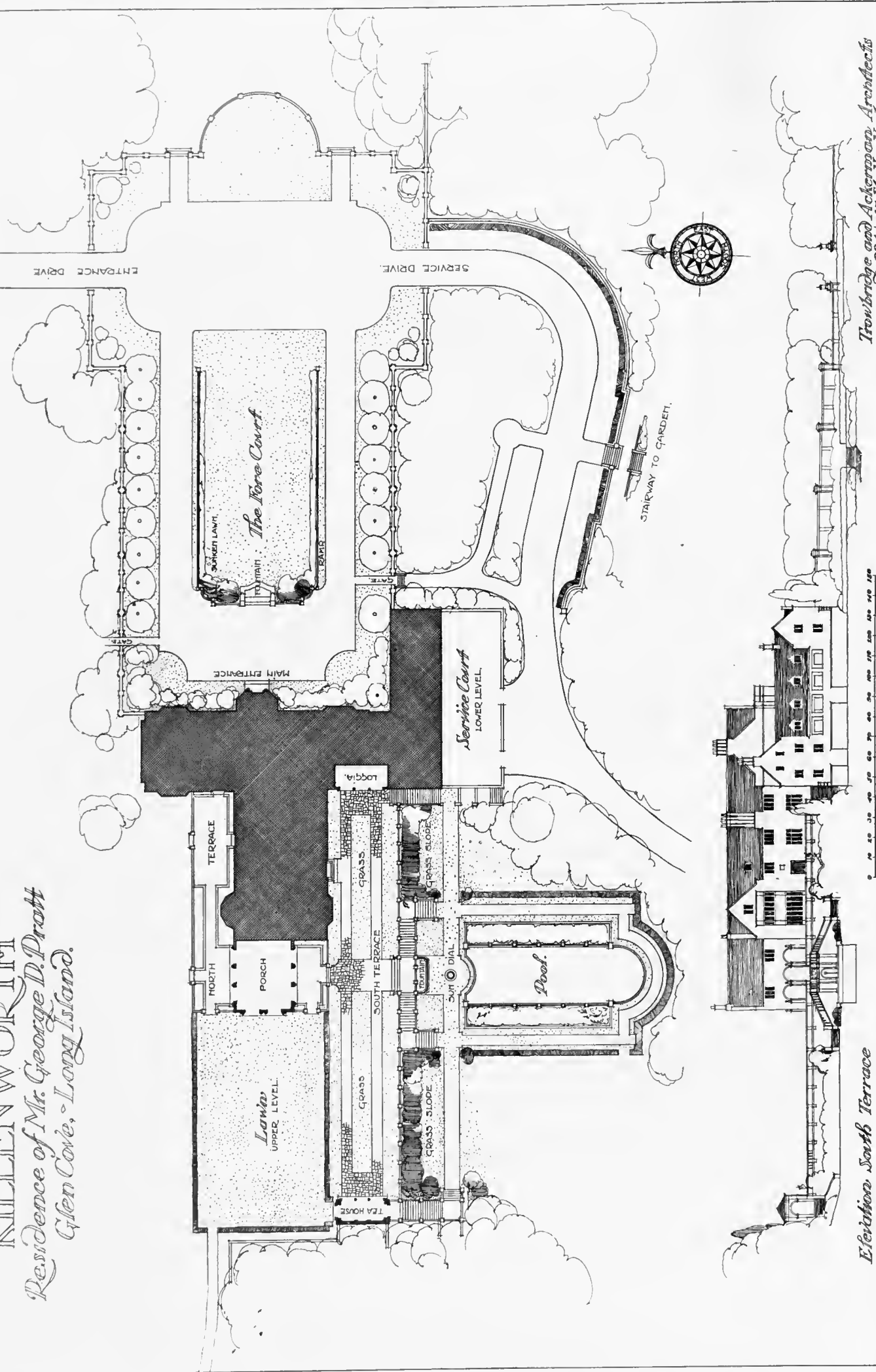
The Gallery appeared in the program after the area of the second floor was known and the shape and direction of the Living-room had been determined. Familiarity with the slopes or contours is essential to a complete understanding of the problem. For example, the survey showed that if the Entrance were to be at the eastern end or side of the plan it would become a "basement" entrance. The low ground toward the south-east suggested the logical point for the Service Court, where all supplies could be brought to the house at a spot far from the living-portion of the



Photograph by Julian Buckly

Dining-room Bay
Country House at Glen Cove, Long Island
Trowbridge & Ackerman, Architects

KILLENWORTH
Residence of Mr. George D. Pratt
Glen Cove, Long Island.



BLOCK PLAN, SHOWING IMMEDIATE SURROUNDINGS OF COUNTRY HOUSE ON LONG ISLAND

TROWBRIDGE & ACKERMAN, ARCHITECTS

plan. The South Terrace, with three sets of steps to the lower level, was suggested by the contour survey. Very early in the studies it was deemed advisable to carry this terrace straight to the foot of the hill, and complete it with some form of garden architecture which would perform the double duty of finishing attractively the terrace and at the same time of masking partially the water-tower. The Tea House was the outcome of this thought. The vigorous planting placed behind this structure helps still more to screen the tower, while at the same time providing a rich background for the Tea House. The top of the tower is seen in the photograph of the Tea House taken from the lower level.

Upon the site of the Pool there existed a formal sunken garden, having its long axis practically in the same position as that now occupied by the axis of the Pool. The character and size of this garden were thought not to be in keeping with the proposed new house, and a change was contemplated in the early studies; but the placing of the new house was determined by the axis of this garden, as may be seen by reference to the block plan.

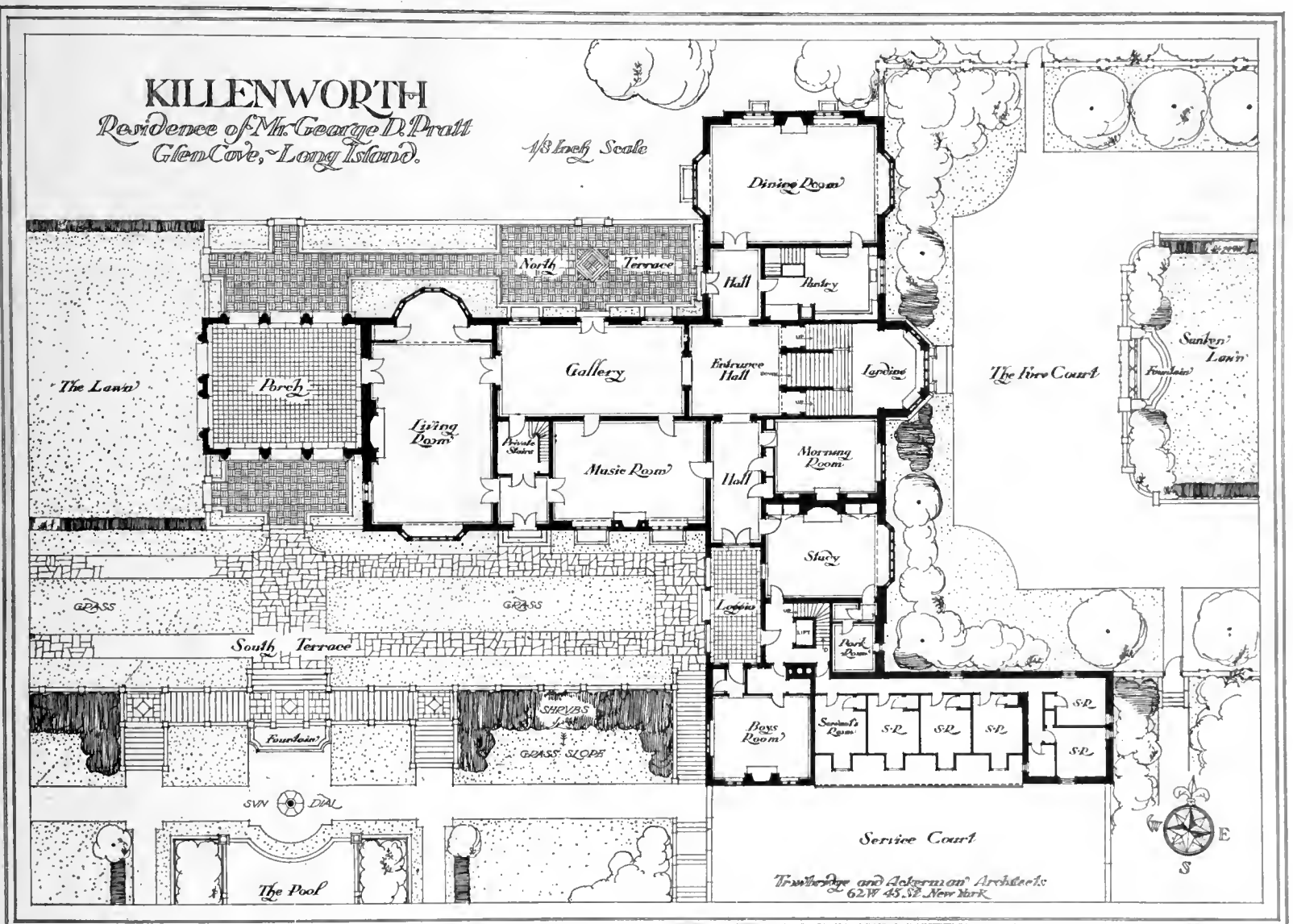
It is therefore apparent that the entourage of Terrace, Pool, Steps, Tea House, Forecourt, etc., were all under consideration in the early stages during the development of the floor plans. The sketch elevations shown herewith were made at a scale of one-sixteenth of an inch to the foot many weeks before the final one-eighth inch preliminary studies were accepted by the owners. Excepting in minor details, the house was built as indicated in these small sketches.

We have seen how the grade levels governed the front door, the Service Court, and the South Terrace; and how the Porch, the Living-room, the Dining-room, and the Entrance were all mentally placed in position before drawings were made. A brief study of the plan of the main floor will show that the Gallery entered the problem as soon as it was decided to place the Living-room with its long axis pointing north and south. Had this room

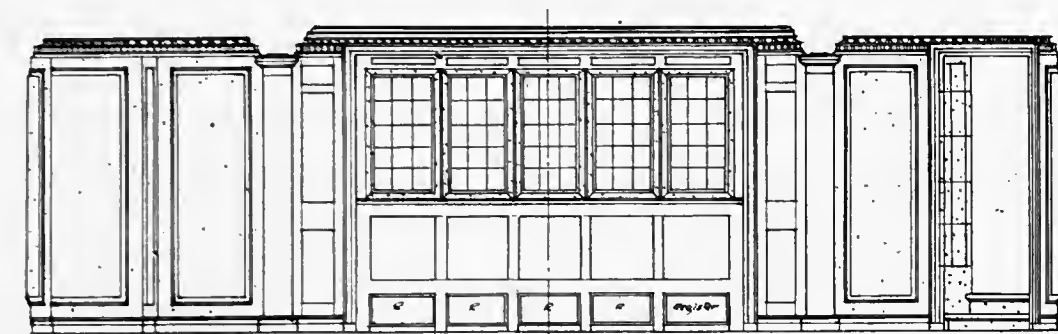
been placed east and west, it would have been necessary for the owners to choose between two ideas; viz., to secure the southern exposure and prevailing breezes on the long side of this room, to the exclusion of the superb view of the Sound and the Connecticut shore, or to secure the view toward the north and lose the southern exposure. The room as finally placed gains the southern breezes, the views toward both north and south, and plenty of sunshine from the south and west. The Music Room is placed so that an audience in seasonable weather may have the option of indoor or outdoor seats. It will also be observed that the circulation from house to South Terrace is made easy by means of Loggia No. 2, the South Entrance, and the Porch.

The basement rooms facing toward the Forecourt have ample light, owing to the natural level of the entrance drive. On the right of the Vestibule are Cloak and Retiring Rooms for guests. On the left are the Kitchen, the Maids' Dining-room, and other kitchen accessories. The service wing contains bedrooms on the level of the first floor, other bedrooms on the basement level, and the Boiler-room, Coal-rooms, Laundry, small Garage, etc., in the lowest floor, at the level of the Service Court. By placing the boilers several feet lower than the level of the adjoining rooms, the supply and return pipes are carried in a tunnel lying below the basement floor, through the otherwise unexcavated portion of the house. In this way was avoided the usual jumble of overhead pipes, which are a necessary evil in the average residence. The basement floor contains many other rooms, such as Kitchen Workrooms, Vegetable Storerooms, Refrigeration Plant, Vacuum Cleaner, Elevator Machinery, Gas Machine, and a large number of the necessary but ugly fresh-air ducts for indirect heating. The principal rooms of the first floor are heated by indirect coils with thermostatic regulation. The second floor has direct radiators enclosed behind grilles.

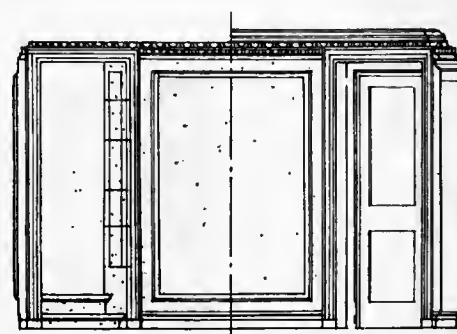
The owners expressed a preference for a simple type of English



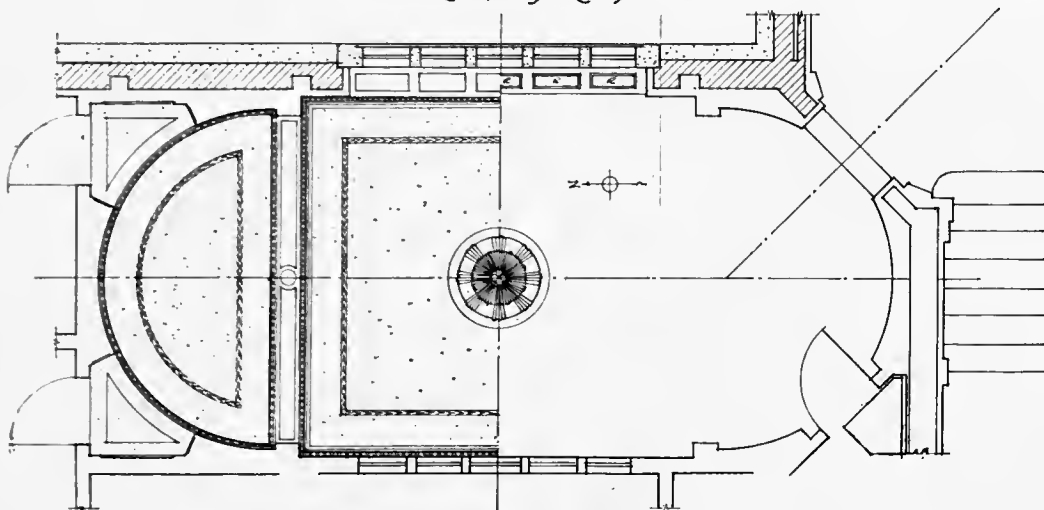
Plan of First Floor
 Trowbridge & Ackerman, Architects



EAST ELEVATION
Reception Room



SOUTH ELEVATION
Reception Room



Reception-room Plan, Half Ceiling, Half Floor

architecture of an early period. Many examples were studied in an effort to find an architecture of simple lines which would combine in a logical manner the fine traditions of old England with the modern development of house-planning as influenced by the complexities of housekeeping of to-day and the rigorous climate of Long Island. Early Renaissance as illustrated by St. Catherine's in Somerset was finally selected as a style which would

admirably lend itself to an irregular plan and to a picturesque rather than formal exterior. Then, too, England shows in many noted examples how it is possible to develop an interesting interior without a monotonous repetition in one period. Thus it is that Killenworth, designed in the spirit of old England but not imitative to the letter, contains Jacobean details in some rooms, Georgian in others, and Adam in others.

The Living-room details were inspired from Jacobean examples, but a modern flavor was imparted by the use of butternut toned a soft, dull brown. The unpaneled portions of the walls are covered with a fabric showing a repeated pattern of medium size in dull browns and blues, chosen to harmonize with the butternut.

The chimneypiece is in carved Hauteville marble. In the windows of this room, as well as in the Dining-room, the Staircase bay window, the Morning Room, and the Study, are shown small and large cartouches of stained and painted glass, leaded into the windows. These, for the most part, were collected by the owner in Europe, with particular reference to Killenworth. Many of them are rare examples of the art of painting on glass, showing exquisite workmanship and beautiful colors. They lend a charm to the rooms in which they stand and serve to recall, in a manner suggestive rather than imitative, a custom frequently followed in the decorations of old English homes. On the floor of the Living-room, as well as throughout the entire master's portion of the house, soft Scotch rugs have been woven to order to fit the shapes of the rooms. These rugs are in dull tones, without pattern, and are used generally to the exclusion of Oriental rugs.

The electric fixtures for the house were designed by Caldwell with spe-



East Elevation



South Elevation

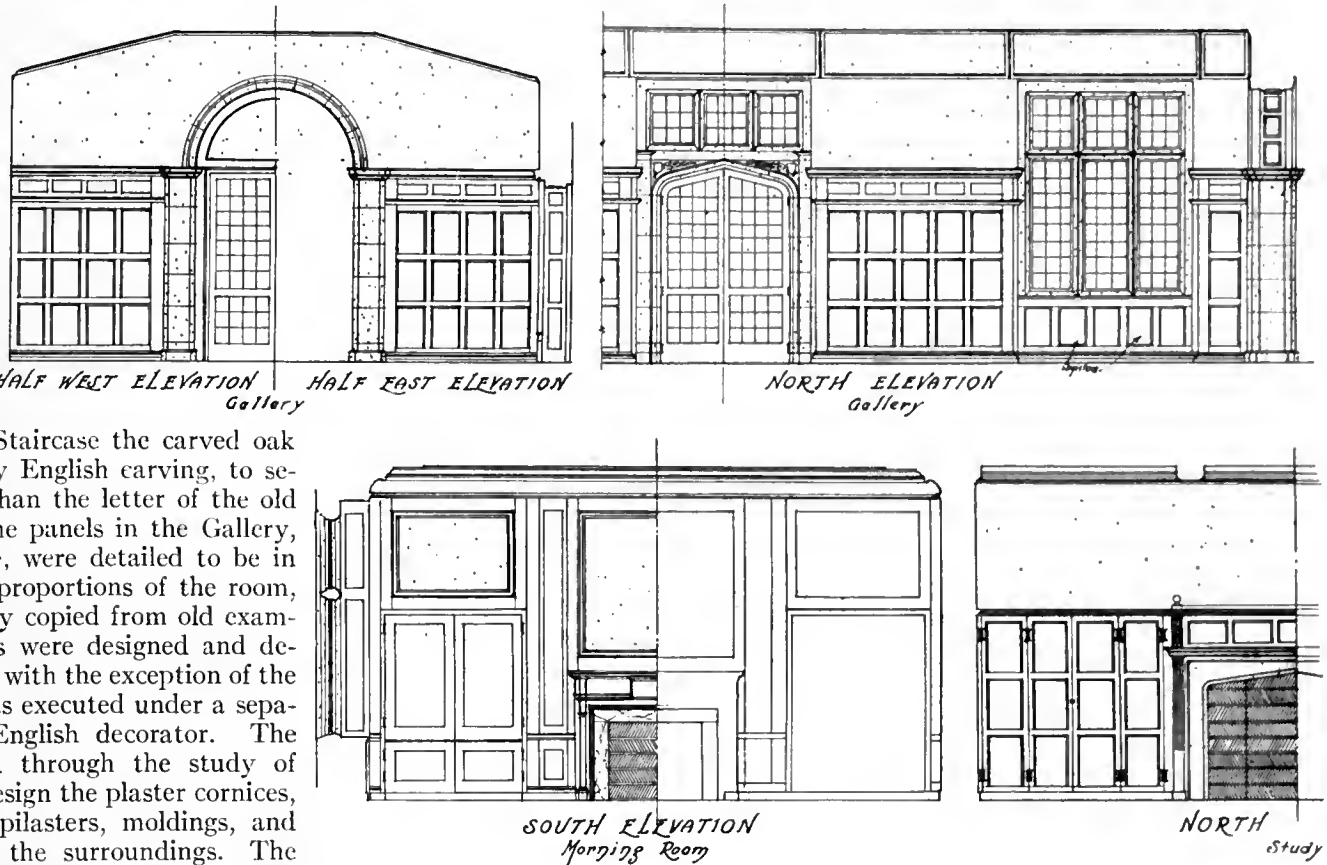
Preliminary One-sixteenth Inch Scale Studies

cial reference to the general character of each room, and the predetermined color-scheme. Thus the crystal pendants in the large ceiling-fixtures in the Living-room have a faint mulberry tint, harmonizing with the color of the rug without matching it in color value.

In the Gallery and Staircase the carved oak was studied from Early English carving, to secure the spirit rather than the letter of the old work. For example, the panels in the Gallery, while Jacobean in type, were detailed to be in scale with the general proportions of the room, instead of being literally copied from old examples. All of the rooms were designed and detailed by the architects, with the exception of the Music Room, which was executed under a separate contract by an English decorator. The thought uppermost all through the study of these interiors was to design the plaster cornices, the wood panels, the pilasters, moldings, and carving, in scale with the surroundings. The Morning Room, for instance, has Georgian details which do not necessarily agree in scale with the Georgian details of the principal bedrooms.

The Dining-room is paneled in English oak and toned in deep chestnut brown to harmonize with the furniture. Incidentally, the rare old French tapestry which hangs on the south wall is in remarkably satisfying harmony with the woodwork. The ceiling for this room was not specially designed, but is an exact reproduction of a ceiling now in the Victoria and Albert Museum, and originally in Sir Paul Pindar's house, Bishopsgate. Here the scale of moldings and ornament was felt to be appropriate to the room, and no reduction or increase in size was required.

The Georgian Morning Room is in ivory white, with the wall-surfaces divided into large panels. In these panels are hung several very modern paintings by Frieske and Miller, which radiate sunshine and cheerfulness. The window-curtains and the furniture-coverings are in color harmony with the pictures and the rug; while the cabinets on the south wall, filled with rare china and glass, are of sentimental as well as æsthetic inter-



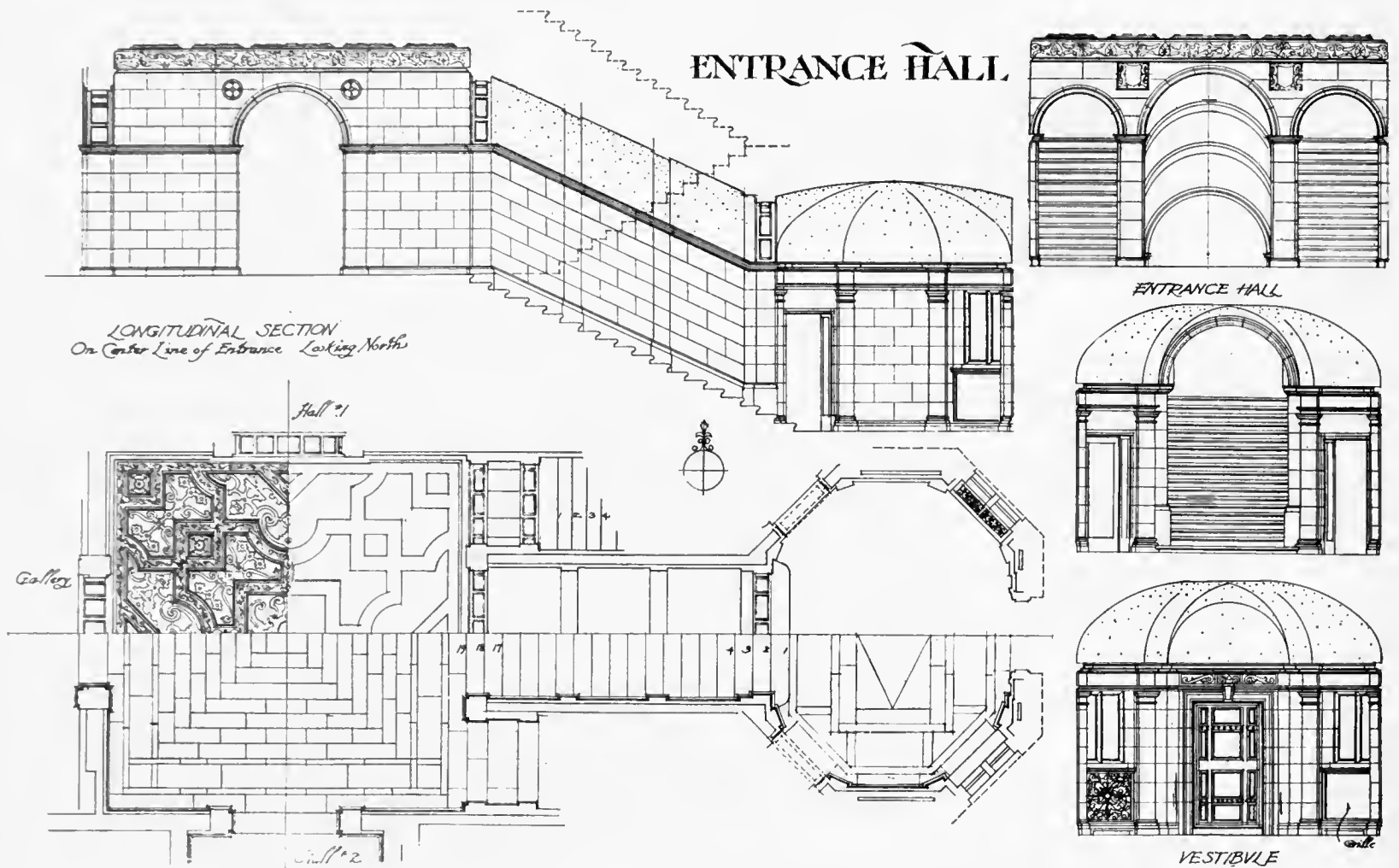
est. The fireplace is equipped with a hob grate of antique type.

The Study is a comfortable man's room, with high oak wainscot and rough plaster on walls and between ceiling-beams. Hunting and fishing scenes in the paintings indicate the leading outdoor pleasures of the owner; and the photographic dark-room, opening from the Study, is expressive of a favorite hobby.

The Music Room has a white painted trim with ornament in the Adam period. The doors on the Music Room side are veneered in mahogany. The predominating tone of the room is



Preliminary One-sixteenth Inch Scale Studies



light and cool. On the walls are several fine examples of the English portrait-painters of the eighteenth century.

The Porch at the western end of the main floor is in cool colors. The walls are similar to the exterior in materials and treatment. The ceiling, in cool-toned stucco, is built with a large cove penetrated by barrel vaults over the arches. The floor is of heavy, dark-red tiles, twelve inches square. The Porch is enclosed in glass and heated in winter, and enclosed only by screens during the warmer months.

On the second floor the owners' suite comes over the Porch and the Living-room. It consists of Bedroom, two Bath-Dressing Rooms, and a Boudoir. A long Loggia, or Sleeping-porch, facing north, opens directly from the Boudoir — as is shown on the sketch of the north elevation. On the south side, over the Music Room, are arranged one Guest Room, two Family Rooms, and three Baths. In the wing over the Dining-room are four Guest Rooms, with four Baths. On the eastern side, over Morning Room and Study, are two Family Rooms, with one Bath; while over the Boys' Room comes one Family Bedroom with Bath near-by. The third floor is largely an open attic.

The bedrooms are generally in the Georgian period, finished in ivory-white enamel. The floors are covered, as on the first floor, with plain, soft-colored rugs having no pattern. The windows are fitted with Venetian blinds and heavy curtains, as well as light sash-curtains. There is an open fireplace in nearly every bedroom.

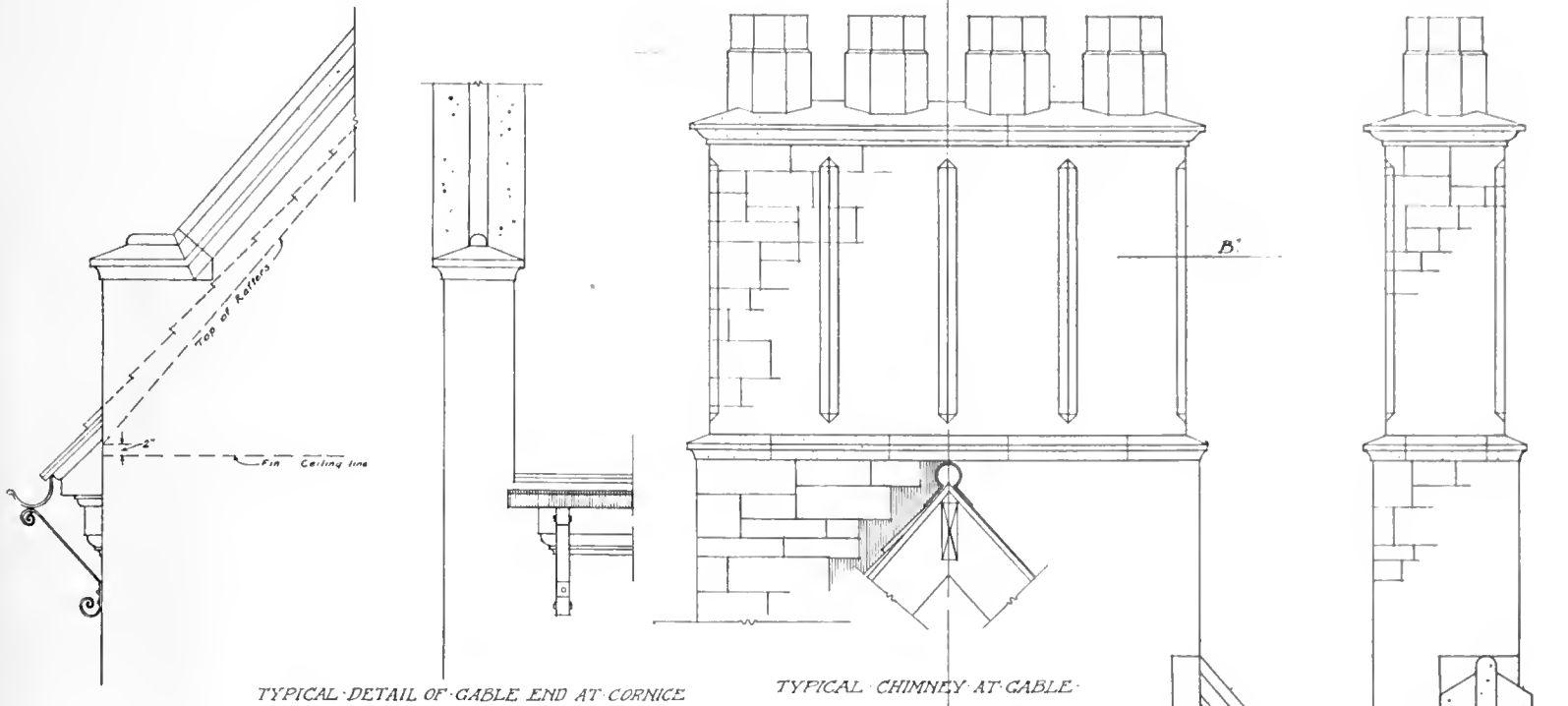
The working drawings shown herewith are the first studies made for the various rooms and for the exterior details. They were among the contract drawings, and served well enough as a basis of estimate, though the rooms were considerably changed and much improved by the study later given them. In rooms where paneled walls were intended these diagrammatic elevations had to be carried somewhat farther than in the case of simpler rooms. The house must not yet be considered completely and satisfactorily furnished. It is at present in an experimental state. Various placings of furniture are being tried, and the pictures which are now hung are not necessarily in their final positions. The owners and their guests have declared the house livable and

homelike — a quality that is, after all, of much greater importance than an excellence in technical detail.

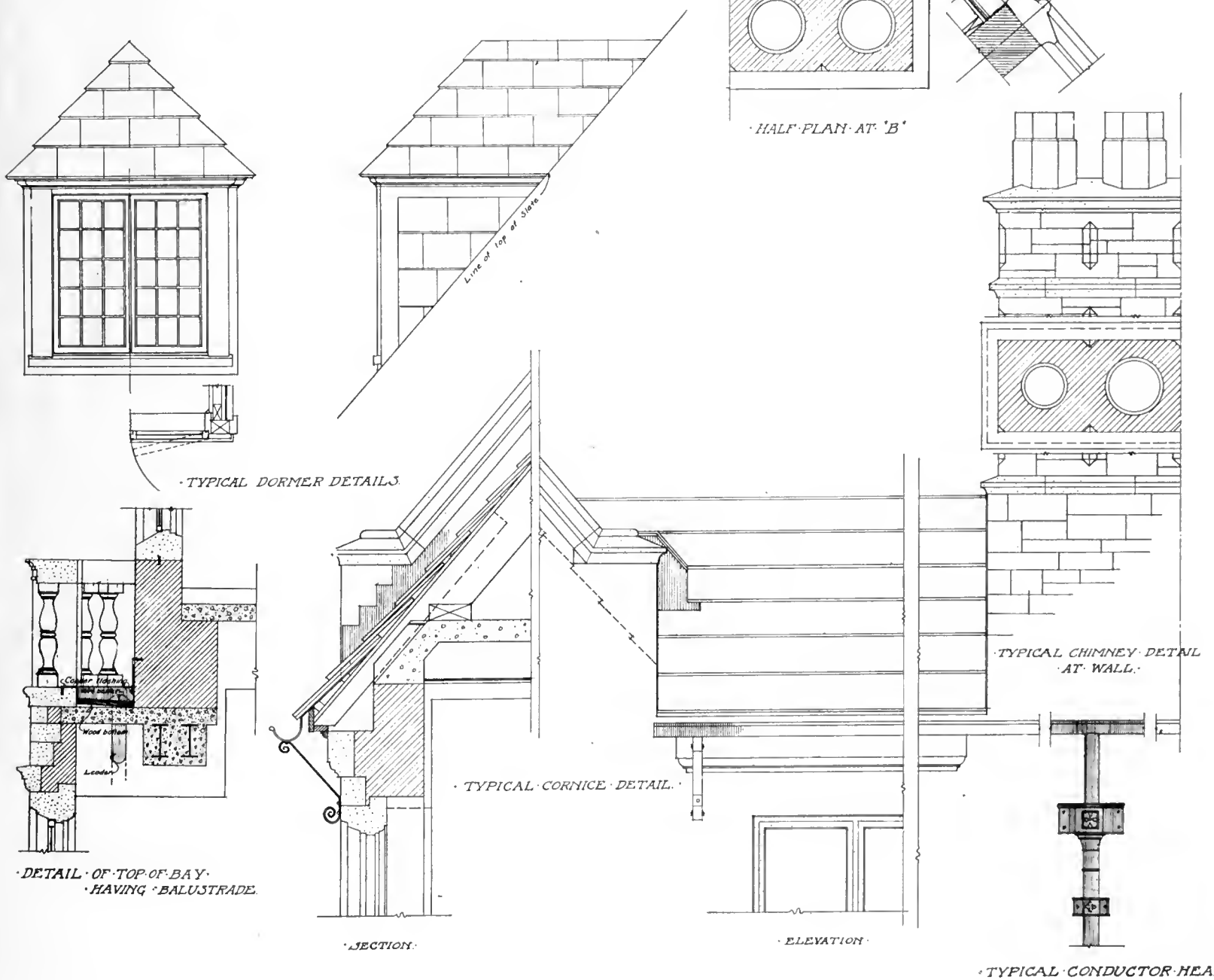
For the exterior stonework, the seam-faced granite from Massachusetts quarries was chosen, as it was felt in color and texture to harmonize with Jacobean architecture more than any other available stone. This granite presents a tone-color rarely found in building-stones. This is due to a peculiarity of the quarries, where the stone lies in large beds having natural vertical and horizontal fissures which, strangely, lie approximately at right angles to each other. These "seam faces" are colored by the seepage of surface-water and by the oxidization of particles of minerals in the stone. The result is a predominating harmony of cool gray — varied and warmed by buff, pink, and brown tones. The quarries produce without extra labor two-inch flat slabs which serve admirably for flags in the walks on the South Terrace. The roof is covered with heavy, unfading green slate, laid in graduated courses. Near the eaves and gutters the slate is approximately one inch thick, lessening in thickness as the exposure to the weather decreases.

The north elevation does not appear among the photographs. Last fall, when these negatives were made, the ground on the north side was under repair, and there remained to be done the setting out of shrubs and trees. The design of the north side may be seen in one of the preliminary elevation studies shown on page 5. The trees and shrubs seen in the illustrations have nearly all been set in place under the direction of Mr. James L. Greenleaf, Landscape Architect. Vines have been started, but it will be years before they will have grown sufficiently to give to the house the picturesque charm which vines lend to an architecture of this kind. It does not require much imagination to visualize Killenworth as it will appear in a few years, with stonework softened and mellowed by the patina which only time can bring, and the whole structure brought into intimate relationship with its site through the medium of clinging vines judiciously planted. Then will be evident the wisdom and good taste of the owners in requesting a simple design with a modicum of ornamental detail.

Alexander B. Trowbridge.



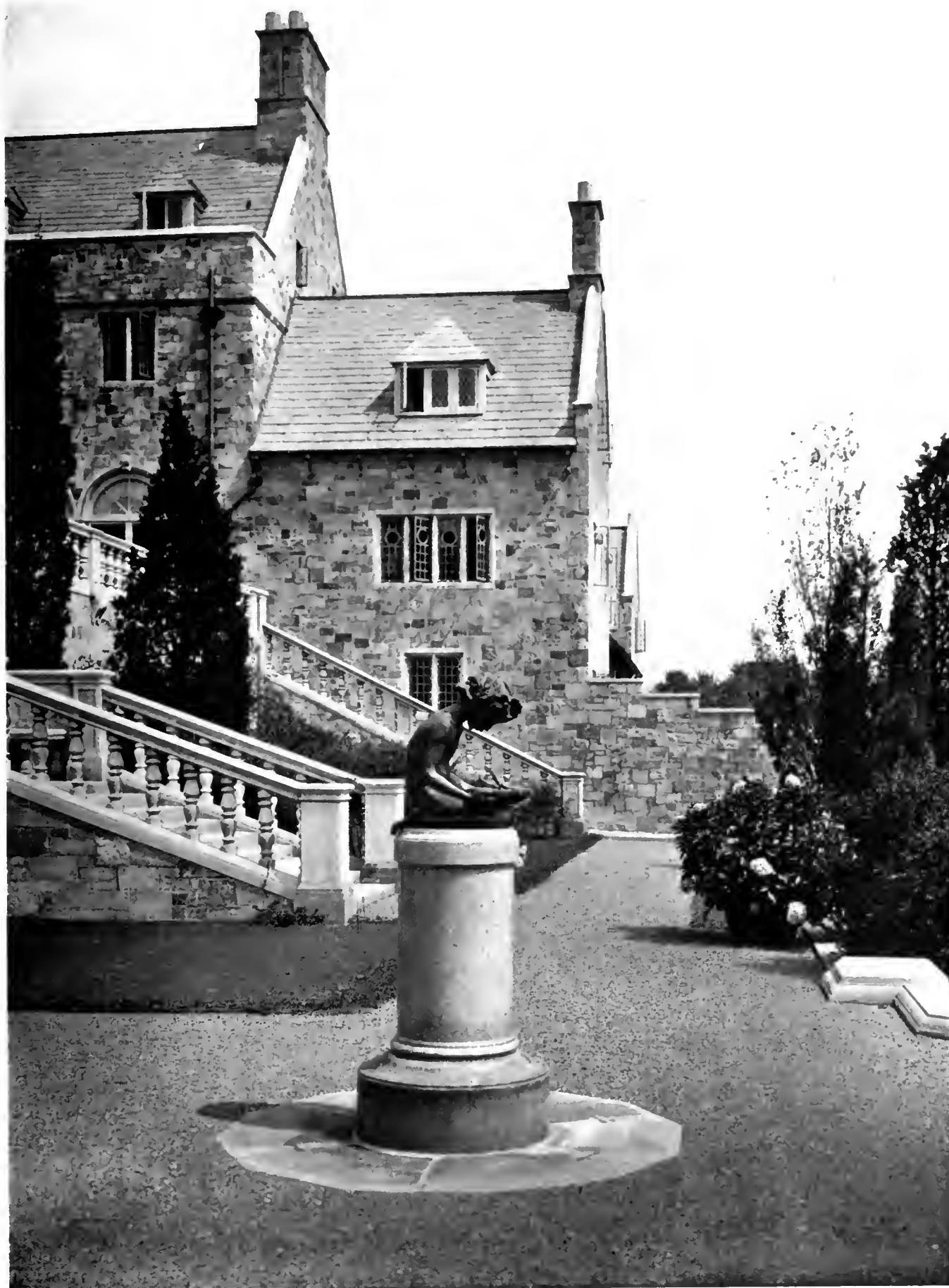
TYPICAL EXTERIOR DETAILS





Photograph by Lucius Buckle

STEPS AT EAST END OF SOUTH TERRACE
COUNTRY HOUSE AT GLEN COVE, LONG ISLAND
TROWBRIDGE & ACKERMAN, ARCHITECTS



Photograph by Julian Buckley

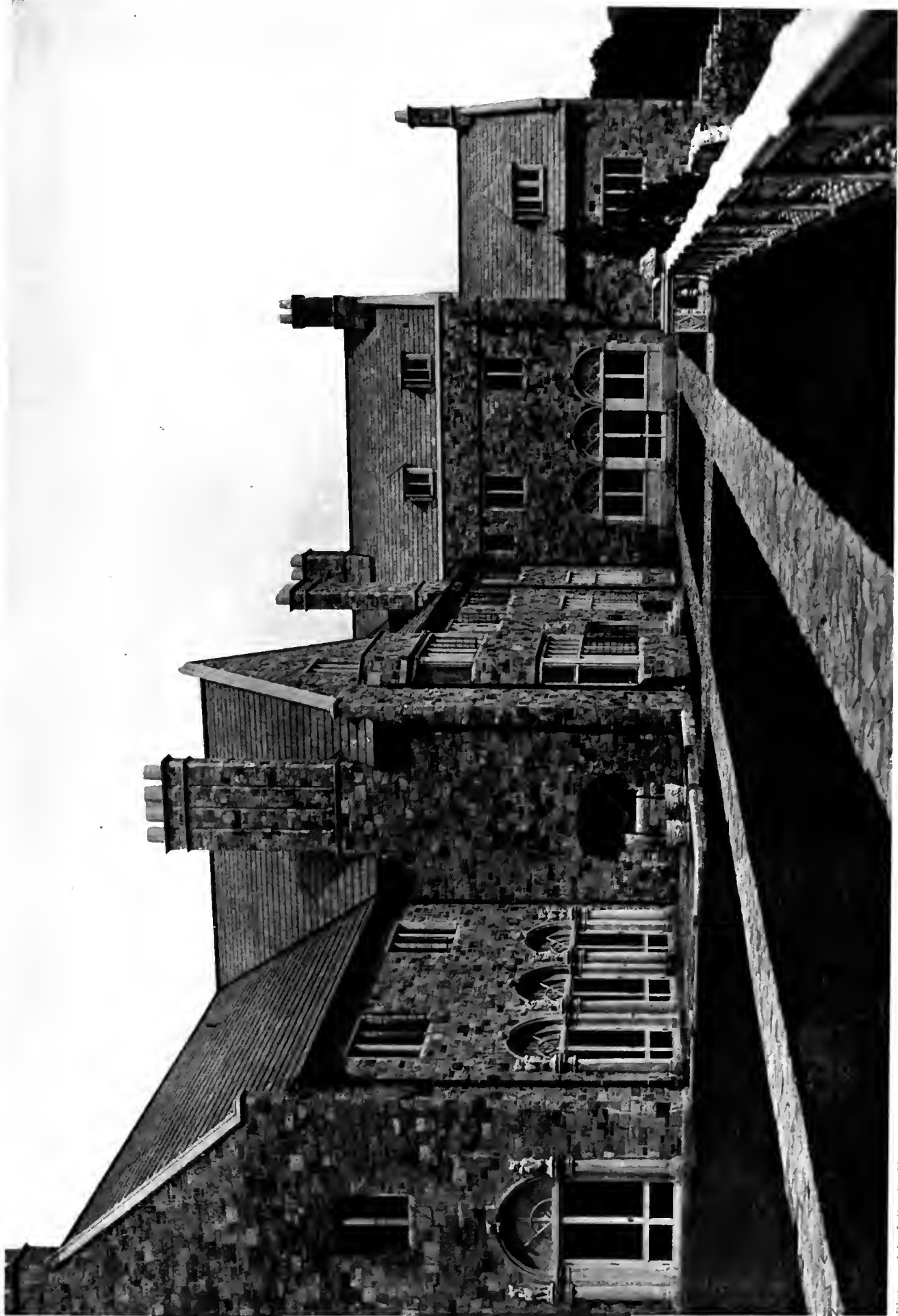
VIEW ACROSS LOWER TERRACE AT HEAD OF POOL
COUNTRY HOUSE AT GLEN COVE, LONG ISLAND

TROWBRIDGE & ACKERMAN, ARCHITECTS



Photograph by Julian Buckley

GABLE OVER LIVING-ROOM
COUNTRY HOUSE AT GLEN COVE, LONG ISLAND
TROWBRIDGE & ACKERMAN, ARCHITECTS



VILW LOOKING EAST ALONG SOUTH TERRACE
COUNTRY HOUSE AT GLEN COVE, LONG ISLAND
TROW BRIDGE & ACKERMAN, ARCHITECTS

Photograph by Julian Buckley



TEA-HOUSE



TEA-HOUSE. FROM LOWER TERRACE.
COUNTRY HOUSE AT GLEN COVE, LONG ISLAND
TROWBRIDGE & ACKERMAN, ARCHITECTS



Photograph by Julian Buckley

STAIRCASE NEWEL IN HALL BAY
COUNTRY HOUSE AT GLEN COVE, LONG ISLAND
TROWBRIDGE & ACKERMAN, ARCHITECTS



Photograph by Julian Barker

LIVING-ROOM MANTEL
COUNTRY HOUSE AT GLEN COVE, LONG ISLAND
TROWBRIDGE & ACKERMAN, ARCHITECTS



Photograph by Julian Buckley

DINING-ROOM MANTEL
COUNTRY HOUSE AT GLEN COVE, LONG ISLAND
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Photographs by Julian Buckley

MANTEL IN STUDY
COUNTRY HOUSE AT GLEN COVE, LONG ISLAND
TROWBRIDGE & ACKERMAN, ARCHITECTS

The Architectural Review

New Series, Volume III, Number 1

Old Series, Volume XX, Number 1

JANUARY, 1914



THE ARCHITECTURAL REVIEW, Inc.

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PLATES

PLATES I.-XII.—COUNTRY HOUSE AT GLEN COVE, LONG ISLAND
N. Y. (PHOTOGRAPHS)—TROWBRIDGE & ACKERMAN, ARCHITECTS

IF the profession is to progress further in this country in its development of a direct and appropriate architecture, or in public estimation, the time has come for its members and, most particularly, its representative organizations to abandon theory and deal with fundamental conditions of practice, which are becoming more seriously disturbing with every year. It is unfortunate that further effort should be made to legalize the competition for the architect,—as a means of obtaining work. It should by now be recognized that in so doing the Institute is but deepening the pit placed at its feet; and it is therefore the more unfortunate that frequent opportunity for harmful utterance has been provided by inaugurating a publication, issued under its own name, in which carelessly considered individual utterances may appear with all the prestige of the Institute behind them.

Under some such misunderstanding have certain expressions on a December page of the Institute *Journal* been brought to our attention, by a reader evidently inclined to accept them as an official expression emanating from the Institute itself! Yet these statements are so evidently personal and individual—in their obvious misreadings of our text, and in their implications—that the “editorial,” if such, certainly requires no restatement of our position; the justice and reasonableness of which we are content that time, and the profession, should decide. As used in the *Journal*, however, the editorial “we” presupposes the writer to represent the Institute; or, at the very least, its *Journal's* point of view. If we are to accept this to be the fact, it becomes necessary to take issue with that body on one vitally important point, on which we believe we more represent the majority of its members than its own “official” columns!

The writer's short-sighted and illogical position, and the position of the American Institute of Architects—if this editorial may be accepted as representing it!—is finally contained in two conclusive sentences, which read: “As to the desirability of competitions we express no opinion. They are necessary, in many cases, and at present there exists nothing to take their place!” It is with this statement we take exact issue, even though it may more represent the individual ideas of the writer than of the Institute; as it is inconceivable that men of intelligent comprehension can be so lacking in judgment as this! If the American Institute of Architects is so sadly in need of a constructive policy of progress as this groping statement would suggest, we herewith offer a more dignified and self-respecting

professional policy, in part at least that of THE ARCHITECTURAL REVIEW. It might be phrased as follows:—

“As to the desirability of competitions we *have* an opinion—and are *not* afraid to express it!

“They are so far undesirable—as a means of ‘obtaining work’ or ‘selecting an architect!’—that there exists *no possible excuse* for their continuance in being!

“They are *unnecessary*, in any and every case that can be conceived; and at *present* there exists a common custom of allotting a problem in building directly to an architect—after first presumably carefully selecting him!—and then working it out with him in detail, aided by his judgment and advice; than which *nothing*, as yet devised, is *better* fitted to take their place!”

EXACTLY what is meant by the statement that “the Competition is necessary”? It is probable that such a competition would by many be considered most “necessary” in the case of the award of an important, or public, building; yet it is least of all likely that any important or public building would be undertaken *without* the preparation of plans, by *some sort* of an architect! Therefore, *if* the selection of an architect is a necessary preliminary to the construction of an important building, would it not naturally follow that *some* architect *must* receive this work to do? If it *must* be given to some architect, *why should the profession itself conspire to throw away thousands of dollars of the private income of its individual members in the endeavor to delay or confuse such a direct award?* Evidently, only in the selfish hope of each person being able to so obfuscate the judges as to secure the award to himself! Could he not, however, probably arrange the matter—with considerable less expense—without going through the costly preliminaries of a competition? Why not a lottery? It would serve as well—and cost him considerably less for his subscription, too! Or let the Institute subdivide its membership, more definitely than it does now, into different grades, judged by actual merits of achievement (just as now actually happens in the case of a “limited” competition!), lists of which grades could be distributed, on inquiry from prospective clients,—governmental or otherwise,—to assist them in choosing an *architect*—“*not* a plan”!

The writer in the *Journal* accepts as inherent all those defects in the conduct of competitions that we presented last June, specifically including “the human fallibility of judges”; while yet attempting to defend the competition, as such, by maintaining these “fallible” judges to be “the best method so far found” of *reducing* the element of fallibility! He even also acknowledges the importance of all those elements of psychology which we previously held to affect the competition, and the judge; while displaying an utter ignorance of the actual conditions of judgment, as well as an inability to understand our position on this entire matter of competitions.

If, as he so states, the proportion of competitions in which a successful solution has not been reached is “exactly the proportion represented by human fallibility” the existence of the competition, *in toto*, is forever condemned! The Peace Palace at the Hague, printed four months ago upon this page, is but one of hundreds of illustrations of this “fallibility.” As we have since had occasion to state, probably *no competition has ever been held which brought out any better practical result than would have been the case had the building been carefully studied in the first place as an architectural problem in close association with those by whom it was to be used!* This conclusion is absolute and irrefutable.

For obvious misstatements of intention or understanding, our editorials of June, and since, remain for all to read—and reach their *own* conclusions! As to the *Journal's* suggestion that “the trick” of Mr. Lowell's plan may be turned many times in a decade—many empty decades of time have already answered! In the decade past has such a trick been turned—at any *other* time? Or in the decade before that? If “decade” be too vague a term, shall we substitute “generation”—or even “century”—instead?

(From "The American Architect")



View from Southwest, Design Proposed for Cathedral of St. John the Divine, New York
Ralph Adams Cram, Consulting Architect

DECEMBER magazines provide interesting contrasts, in the restrained and Puritan simplicity of the old West Roxbury "Meeting-house" and the equally cold repression, in the Episcopal Synod House in New York, of an old-world style originally vibrant with life and vitality; and both contrast with the even more palpably foreign design for the completion of St. John the Divine. As to the façade, either one accepts its postulate, or rejects it absolutely. Believing that modern architecture should strive to reveal the modernity of a building's construction by expressing a modern point of view in its design rather than literally reproducing architectural forms from which vitality has departed, we personally do not approve of setting back the hands of history to rebuild the façade of Notre Dame—that, even in the original, is hard and wiry to an extent that cannot but be multiplied in its reconstruction in this commercial and essentially "unGothic" generation! Interesting as is the composition—judged as a "school problem;" in archæology, perhaps—the transept angle towers, despite their difference from the French front in design, are more successful from the west than in relation to the truncated crossing tower from the northeast. Accepting the desirability of departing from the crossing tower of the old design, is it not possible to adopt some such lighter treatment as at Lincoln, for instance, without the seemingly unnecessary new towers; particularly if—as the sketches suggest—they are to partake of the bareness of the new Synod House that has been now added to the heterogeneous collection that has begun to hive around the Cathedral? The Synod Hall partakes

Current Periodicals

A Review of the Recent American And Foreign Architectural Publications

(From "The American Architect")



Synod House, Cathedral of St. John the Divine New York
Cram, Goodhue & Ferguson (Boston Office), Architects
(From "The American Architect")



Old Meeting-house, West Roxbury, Mass.
(From "The Brickbuilder")



Waiting-room, N. Y. C. Passenger Station, Rochester, N. Y.
Claude Bragdon, Architect
(From "The Brickbuilder")



Exterior, New York Central Passenger Station, Rochester, N. Y.
Claude Bragdon, Architect

(From "The American Architect")



Interior, Design Proposed for Cathedral of St. John the Divine, New York
Ralph Adams Cram, Consulting Architect

of the same bare coldness; although the organ-case and the balcony-rail are modern—and English—in type.

Architecture for December prints a really interesting Government Building on the Battery in New York, the Barge Office; which, despite the truncation of the Campanile and the inappropriate brick jointing, is yet considerably better than these pictures credit it with being! Cram, Goodhue & Ferguson's (*New York* office) Waterbury City Hall (we published Mr. Gilbert's façade last November) is a charming handling of Municipal Colonial. The Graduate College of Princeton (by Cram, Goodhue & Ferguson—*Boston* office) is again illustrated, now accompanied by a plan correlating the group, and rendering it more intelligible than when attempted by *The American Architect* last month. The photographs are also better, in composition, reproduction, and printing;—suggesting texture and scale. The Cleveland Memorial Tower (published in the February, 1912, *ARCHITECTURAL REVIEW*) is again illustrated, with the roof drawings and the Great Hall west window, by William & Annie Willet. Mr. William Welles Bosworth's Rockefeller house, on West 54th St., is rather poorly shown; with a monumental High School at Albany—more resembling government or judicial architecture than a schoolhouse. A charmingly simple and native clapboarded house by Rogers & Zogbaum is worthy of illustration.

The American Architect for December 3 illustrates Mr. Mullgardt's Festal Court at the Panama-Pacific Exposition,—an interestingly festive treatment, shown here last June, but so depending upon color-handling that no criticism is possible from these drawings, with

(From "The Brickbuilder")



House at Lake Forest, Ill.
Howard Shaw, Architect

(From "The Brickbuilder")



House at Great Neck, L. I., N. Y.
William Adams, Architect

(From "Architecture")



House at Cornwall-on-Hudson, N. Y.
Rogers & Zogbaum, Architects
(From "The Brickbuilder")



First National Bank, Ipswich, Mass.
Andrews, Jaques & Rantoul, Architects
(From "The Architectural Record")



First Church of Christ, Scientist, Los Angeles, Cal.
Elmer Grey, Architect
(From "Architecture")



United States Barge Office, The Battery, N. Y.
James Knox Taylor, Architect

their occasional use of conventional or thoughtless details.

On December 10 an amusing architectural skit, "How To Get Rid of a Model Farm,"—presumably explanatory of Mr. Kenneth Murchison's alterations, transforming a dairy farm at White Plains into the Gedney Farm Hotel,—is as interesting as the buildings, both outside and in, particularly such logical changes as "the bull-pens to the ballroom," or "the cow stables to the grille"! The plates also show the old Theodore Parker Meeting-house, at West Roxbury, Mass.

On December 17 appears, at last, an issue of real architectural value, illustrating, besides the Cathedral design, Claude Bragdon's well-handled Rochester Station for the New York Central—shown by the designer's drawings; definitely presenting, in concrete form, the application of an already stated, if formerly seemingly abstract, theory of architecture, design, and appropriate decoration.

The December 24th text is of committee reports at the Institute Convention, while the plates reprint Cass Gilbert's Kinney Building at Newark—shown here when first published, last August. "Four plates of Student Work are also printed."

December 31 is devoted to "Theater Acoustics," by Professor Sabine, with pictures of theaters; models showing sound-waves; a comparatively recent Chicago theater, The Blackstone; and drawings for a Louisville theater with badly arranged boxes and a more than usually constricted stage plan, seeming to place it as a moving-picture theater of spacious auditorium dimensions. The innocent editor has been led to republish the infamous Iroquois Theater—under another name!—as a "new" building.

The December *Brickbuilder* also illustrates Mr. Bragdon's Rochester Station—from premature photographs, displaying building and grading material. Mr. Waid describes McKim, Mead & White's new offices; and Mr. Bowman's "Architectural Jurisprudence" (Part VI) and

Mr. Mark's fourth instalment of "Lighting for Public Buildings" continue. Mr. Allen writes on "The Quantity Surveyor," and the Montefiore Home is reillustrated. The plates include Andrews, Jaques & Rantoul's brick Georgian bank at Ipswich; Joseph Evans Sperry's Maryland School for the Blind,—an illiterate grouping of Georgian portico between pointed English gables, flanked by nervously striped half-timber cottages—a polyglot and polychrome combination; a Chicago apartment, by Schmidt, Garden & Martin; a Germano-English half-timber-and-brick apartment at Baltimore, by E. H. Glidden; and two houses,—one attractively simple and characteristically brick house at Lake Forest, by Howard Shaw, with quaint interiors; and a previously published brick-veneered-and-timber-nogged house at Great Neck, by William Adams.

The December *Architectural Record* is a Pacific Coast Number, displaying many buildings that would have been interesting if not so familiar; besides the distinctive—if well known—work by Greene & Greene, and the McNear Villa, by Bliss & Faville—both much enhanced by careful planting. Several residences by Mr. Mullgardt; Hunt & Eager's Leffingwell house at Pasadena; Mr. Farquahar's houses, already illustrated here, are supplemented by several less familiar, including the Kellam Villa at Pasadena, and another at Sierra Madre—the former more American in type. Mr. Irving Gill's Bella Vista Terraces are locally appropriate architecture, inexpensive from their low height and simplicity—the street side might recall Ponte del Garda. An address by John Galen Howard, "The Architectural Outlook," is printed, with an article by Elmer Grey illustrated by his only partly successful Scientist Church at Los Angeles; while among familiar work is Myron Hunt and Elmer Grey's Throop College, the Huntington and Wattles houses. Mr. Hobart's Newhall residence, and several cottages by Arthur Kelley.

(From "The American Architect")



View, Gallery, toward Proscenium Arch, Blackstone Theater, Chicago, Ill.

(From "The American Architect")

Exterior, Blackstone Theater, Chicago, Ill.
Marshall & Fox, Architects

(From "The Builder," London)

(From "The American Architect")



View, Auditorium, from Stage, Blackstone Theater, Chicago, Ill.

The article about Willis Polk includes several charmingly drawn studies, the gardens behind the Moffit house at Piedmont, and — unfortunately — the interior fittings for St. Mark's, Berkeley.

The December *Western Architect* attempts to exploit Western-Canadian development — and entirely fails of architectural success. Canadian work is too imitative, while failing to achieve the spirit, of work in England and the States. Mr. Edward Warren's "Breach House," transferred from Cholesey, England, to Vancouver, B. C., by Wilbert Rattray, does not equal the original. Several church designs are quite despicable; and excepting only two or three commercial buildings, there is little architectural reason to excuse this issue — on much of which, indeed, no architects' names are mentioned.

November *Construction Details* prints Frank Lloyd Wright's Coonley house, Riverside, Ill.; a small mortuary chapel and undertaking establishment at St. Paul; and a house at Highland Park, Ill., by Talmadge & Watson. *Construction* for December shows a proposed Post-office Square and Registry Office in Toronto — the latter evidently inspired by monumental work of McKim, Mead & White — and Montreal School Buildings, by Nobbs & Hyde. The December *Institute Journal* experiments with still another cover, — the seal being now too small for the lettering, — and a leading article on the drawings of Mr. J. M. W. Turner.

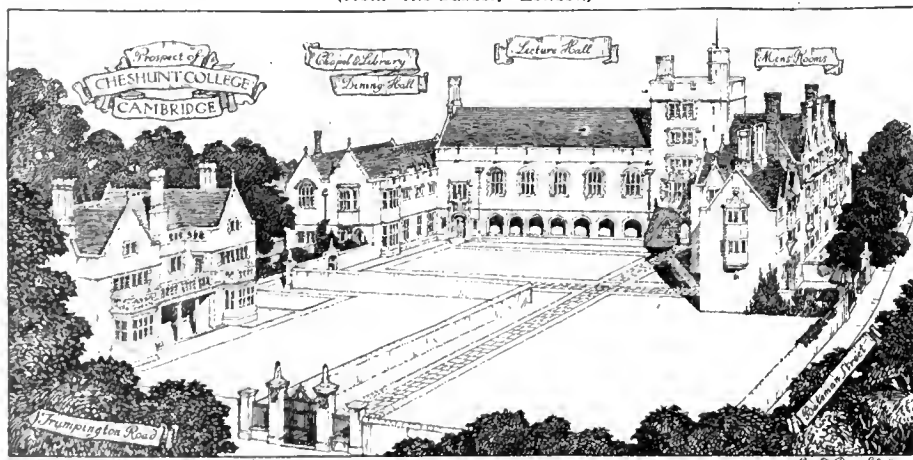
The November *English Architectural Review* contains the first article on "English Painted Decoration," remodeling the Paris Palais de Justice; a 17th-Century English house, "Slyfield;" a small garden; and a demolished Georgian church at Rotterdam. The plates illustrate these articles and

New Premises, Edgware Road, London
Philip W. Davis, Architect

(From "The Builders' Journal," London)

Baron Von Plessen's Town House, Copenhagen
Gottfred Trede, Architect

(From "The Builder," London)

Competition Design, Cheshunt College, Cambridge
Hastwell Grayson, Architect

the United Service Club in Pall Mall, which is also described in the text.

The Architects' and Builders' Journal publishes, December 3, London apartments by Frank Verity, and an important town residence at Copenhagen; December 10, in current work, a residence in the Rue de Constantine (Paris), McKim, Mead & White's New York Post-office, and the staircase waiting-room end of the Grand Central Terminal. December 17 includes the University of the Cape of Good Hope, another Paris apartment, and some workmen's dwelling schemes for the city of Bradford; and, December 24, a modern Paris apartment in the Rue Grenelle, besides

The Builder for December 5 reviews the Pan-American Building's recent publication; shows some Montreal work by Darling & Pearson, the R. I. B. A. drawings of Manchester's Old Town Hall and Sir John Vanbrugh's Blenheim Palace; and the Civic Design section describes the layout of Karlsruhe. December 12 contains some inexpensive cottages, two moving-picture theaters, and some flats "de luxe," by Frank Verity, with two English Business Premises, both street architecture of more interest than usual. December 19 contains a review of California architecture; Mr. Hastwell Grayson's sketch for Cheshunt College at Cambridge; a Carnegie Library; and two of Mr. Kirby's old sketches — one of which the editor mistakenly uses as referring to the present Cathedral of St. John the Divine! December 26 deals with "Medieval Bronze Doors of Italy," and the Rome Scholarship schemes in architecture and sculpture.

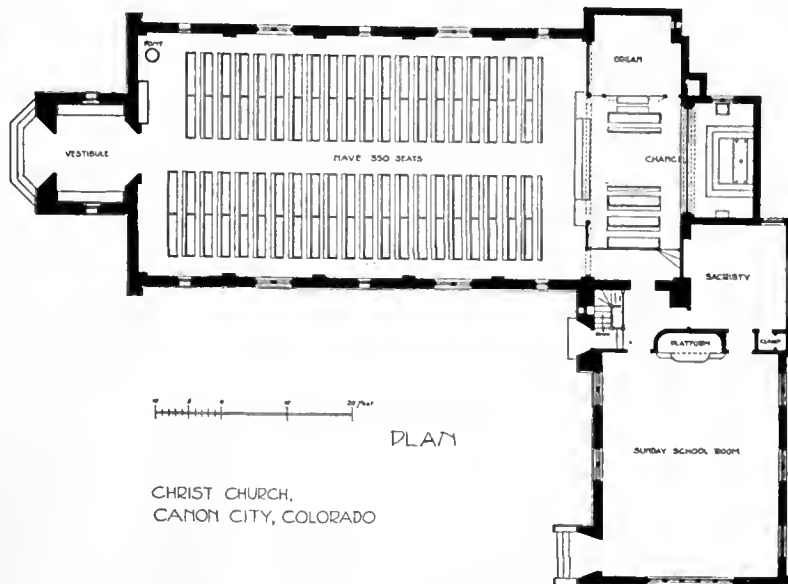
THE ARCHITECTURAL
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PUBLISHERS' DEPARTMENT

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SINCE THE ARCHITECTURAL REVIEW published, a year and a half ago, Mr. Gardner's arraignment of the conditions existing in regard to School Ventilation — an article that attracted an unusual amount of discussion and attention — it has given its pages principally to the illustration or discussion of æsthetic problems in architectural design. With this issue we revert again to the practical consideration of another prevailing defect in architectural engineering, this time concerned with the conditions that surround our plumbing regulations; and our available text-space is given to Mr. J. Pickering Putnam's careful analysis of the present situation. We are fortunately able to present an article that is constructive as well as destructive; as Mr. Putnam points out not only those ways in which improvements can be made, but ends with specific paragraphs that — if incorporated in our plumbing law — would permit the advocated improvements! We sincerely hope our subscribers will read this important article throughout.

Our added plates show two American Churches: one at McKeesport, Pa., by John T. Comes; another, by Maclaren & Thomas, a simpler and more rustic scheme, in Canon City, Col.; and an attractive dwelling and studio built at East Gloucester, Mass., by Charles K. Cummings, for Miss Cecilia Beaux, the painter. We also add four plates of English Country Houses, including a plaster house at Jersey, by Ernest Newton, — one of the most attractive and informal of his dwellings in the Georgian style, — and two exterior plates of Tynley Hall, an unusually correct use of English baronial precedent, preserving not only



Plan, Christ Church, Canon City, Col.
Maclaren & Thomas, Architects

the matter, but the very manner of its times.



Upper Stories



Lower Stories

Jefferson County Savings Bank
Birmingham, Ala.
William C. Weston, Architect

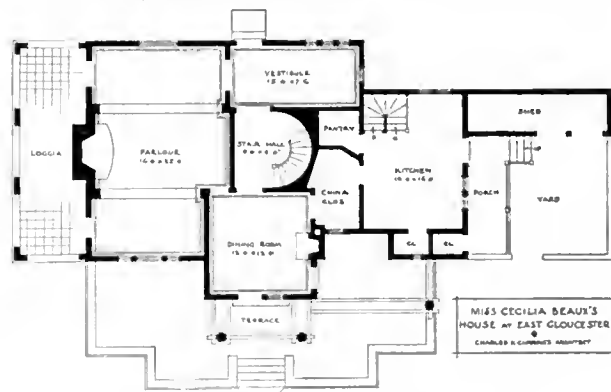
THE March issue of THE ARCHITECTURAL REVIEW will publish five of the fifteen sets of competitive drawings submitted in the Pittsburgh Court-house-City Hall Competition, including designs by Janssen & Abbott, Rutan & Russell, MacClure & Spahr, Kiehnel & Elliott, and R. M. Trimble. Besides filling our regular plates with the principal drawings, supplemental plans can be compared on additional text-pages; so that some forty or more of these various drawings will be reproduced.

The same number will contain, in the English Country House series, a half-dozen illustrations of Mr. Lutyens' most distinctive and dignified English mansion, "Marsh Court" — in Hampshire. Both ex-

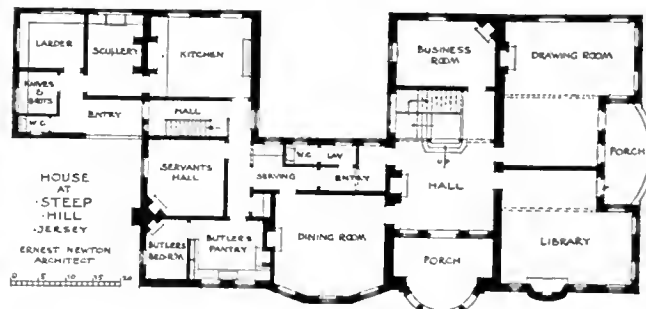
teriors and interiors of this dwelling are unusually distinguished in character and design; and the completed structure has been rarely successful in that, while distinctly modern, it nevertheless is to be compared with dignity to many of the brick Tudor Manor-houses from which it has, in style, been generally derived.

Added American plates will show more of Mr. Cummings' attractive dwelling and studio for Miss Cecilia Beaux, at East Gloucester, Mass.; as well as two more American Churches, Mr. Henry Vaughan's Adelbert College Chapel in Cleveland, O., and John T. Comes' Church of the Holy Family at Latrobe, Pa.

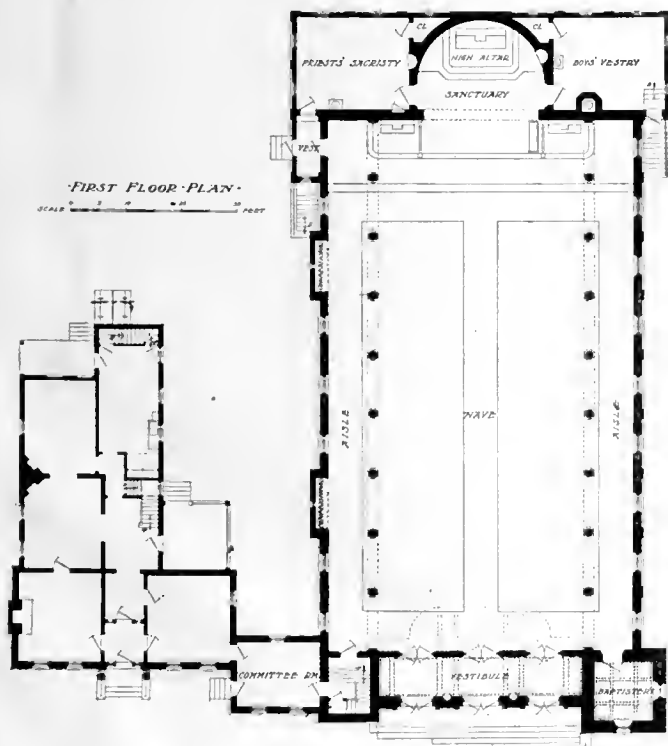
We publish this month the floor plans and general details of a well-designed metropolitan Office Building and Bank, nearly finished, at Birmingham, Ala., showing upon this page two pictures recently taken of the structure, to indicate its appearance and progress.



Plan, Miss Cecilia Beaux's House at East Gloucester, Mass.
Charles K. Cummings, Architect



Plan, House at Steep Hill, Jersey, England
Ernest Newton, Architect



Plan, St. Mary's Church, McKeesport, Pa.
John T. Comes, Architect



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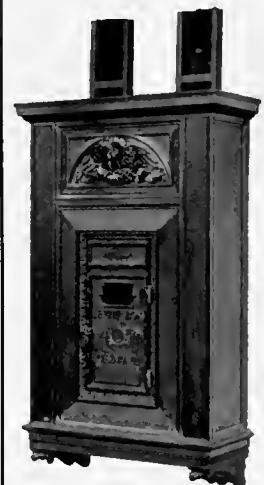
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The Architectural Review²¹

Volume III (Old Series, Vol. XX)

February, 1914

Number 2

Our Faulty Plumbing Laws and Regulations

By J. Pickering Putnam, Architect

THE ARCHITECTURAL REVIEW perhaps too rarely confronts its readers with problems of the most practical importance. In the continued insistence it places upon æsthetic and professional standards in the profession,—a position forced upon our conscience by the failure of other publications always to maintain equally high editorial ideals,—we often do not find the space necessary for the discussion of these practical problems of health and sanitation; unless they are of the most vital importance to the community.

A little more than a year ago we dealt with one of these problems: the criminal standards maintained for the ventilation of school-buildings—criminal because those enforcing them believe they are ensuring the health and vitality of the pupils forced to exist within these buildings. In this issue we deal with an even more important problem—more important because it affects not merely the health of young children during the hours that they are in school, but the health of the entire community, going into every home in America; and, incidentally,—although this fact is more likely to affect the American conscience!—it also concerns a tremendous financial loss inflicted year after year upon all interested in building or the improving of property.

The publishers of THE ARCHITECTURAL REVIEW therefore are thoroughly in sympathy with the principles set down in the article that treats this condition so exhaustively this month. An unusual amount of space has been given to make Mr. Putnam's statements absolutely complete and conclusive. The standard adopted for his criticisms—the Boston Building Law—is also not to be construed as narrowing the argument to one locality. It is intentionally utilized, inasmuch as that building law has been the model copied—both in its merits and its defects!—throughout the country, as a standard measure of exceptional merit. Therefore it is important that the faultiness of these standards should be known; as well as that the underlying principles should be separately analyzed and plainly restated to benefit other communities which will find similar requirements imposed in their own local laws.

To avoid misunderstanding, Mr. Putnam desires it to be stated at the outset that he has already patented a number of steam and plumbing appliances, and especially the "Securitas" trap and pipe joint, to both of which he refers in this article in order to explain some of the economies permitted by their use, which he believes the public

now has a right to demand. It should also be stated that Mr. Putnam expects to have nothing to do permanently with the marketing of any of these appliances, though he has been retained for the present in an advisory capacity by the manufacturer of these goods, to aid in the conduct of experiments in their engineering department.

Nevertheless, is he vitally concerned—as an individual architect—in the protest against legislation which at once doubles the cost of plumbing and reduces its safety and convenience; and he hopes that publicity will force some of these main contentions to be soon realized.

The fight for progress in this direction is one-sided: few are interested, though all are concerned; and it can be successful only when architects throughout the country take hold as a body and join with advanced Building Commissioners in investigating the whole subject and insisting upon reform.

The architects of America are better able to effect a reform in this department of building than any other body of men in the country; because, while absolutely disinterested, they are better equipped than any other body to view the situation broadly and scientifically, and to exert upon legislators the kind of influence that should compel them to take action in behalf of the public,—against the pressure of selfish interests and the inertia of ignorance and indifference.

Upon them, at any rate, lies a grave responsibility in bringing about this reform; because it is to them that their clients, the public, look to safeguard their interests and health in all departments of building-construction.

In conclusion, therefore, let us call upon them to renew their efforts to simplify the plumbing laws of America.

* * * * *

So far as the points made in this article apply to the Building Laws of Boston, the Boston Society of Architects has already voted unanimously to resume an attempt to alter existing legislation, along the lines of plumbing simplification; recommending that the findings of the City Commission of 1907, its legislative bill, and the points urged in this article be restudied with a view to the presentation of a new bill to the present Legislature, providing for a better and simpler plumbing code.—Ed.

JUST as the physician has to deal with the most loathsome diseases and virulent poisons in behalf of his patients and of humanity in general, so the architect should be willing to consider the question of sewage disposal, however uncongenial, as one which vitally affects the health, comfort, and pecuniary interest of his clients and of the community at large, and not disdain to lend his aid toward bringing about better conditions.

It is certain that he will find no part of building-legislation so far behind the times, so utterly irrational, and so much in need of his study and correction as this. Plumbing is in reality very simple in itself, but has been so unnecessarily confused and complicated by unwise and improper legislation that the idea seems to have arisen that in buildings of importance the services of a Sanitary Engineer are required. This need not be so. The architect capable of planning the whole building, and responsible for its character, can quite as easily master the new, rational, simplified, and scientific plumbing as he does the intricate calculations of strength of materials, or the heating, ventilation, lighting, and decoration of the structure.

Nor have the architects failed to recognize and act upon their responsibility in this domain. As some may remember, the Boston Society of Architects passed a resolution several years ago favoring the simpler system. It appointed a committee and employed counsel to obtain the necessary legislation for its realization. In 1907, the society again aided the Commission appointed by the city for improving the building laws; and an excellent plumbing bill calling for simpler and more scientific work along many lines was framed. This bill passed to the third reading in the Legislature—where it was killed by parties acting adroitly at the very last moment in substituting an emasculated form of

the bill and slipping it through so quietly and skilfully that it succeeded in eluding the notice of the Commission itself until it was too late for it to file an effective remonstrance, as it desired and attempted to do.

Some Grave Defects in Present Plumbing Laws

Some of the more important defects in our present plumbing laws—defects that should be removed at once—are as follows:

(1) Back-venting should be prohibited absolutely, and not be left to the judgment of any individual, however learned or responsible. There is no more reason for leaving this to the judgment of one man than for placing upon him the responsibility of deciding for each individual building whether or not a special material of known value, such as iron or stone, shall be debarred from that building; or whether it shall be decorated or left plain. The mistake has been made of regarding this matter as one affecting differently each specific building; whereas it is, on the contrary, a question of principle, governing all buildings alike, and involving in its decision vast public interests. It should be determined definitely and finally; and disposed of completely, and without ambiguity in the law.

(2) Flexible joints and standard thickness of pipes should be allowed; and the law prohibiting every kind of joint on cast-iron pipes excepting the lead-caulked hub-and-spigot joint—the joint which has been declared by the best judges and demonstrated in practice to be the worst piece of construction now known in the whole domain of building—should be repealed.

(3) The main house-trap and all the extra piping it involves should be prohibited.

(4) The requirement that every water-closet should be lighted

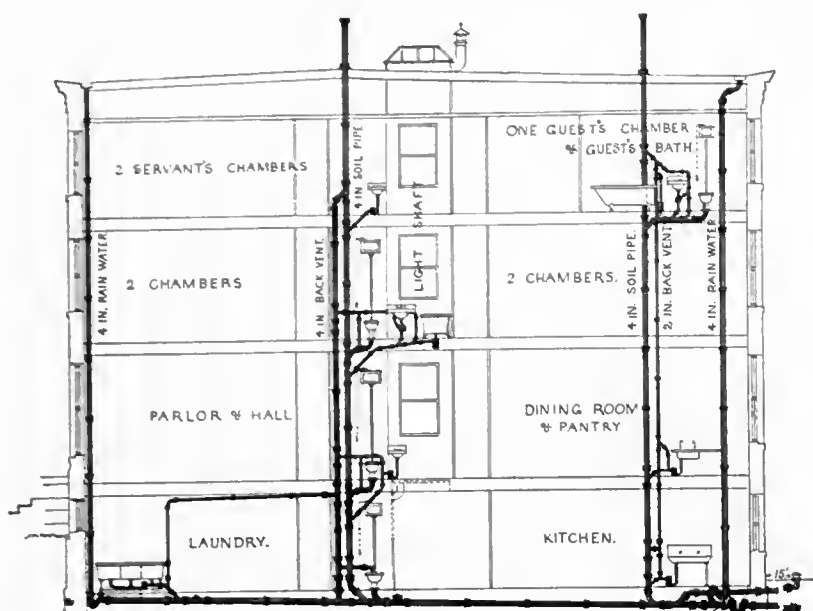


Fig. 1

and ventilated by a window opening directly or indirectly on the open air should be repealed; and a small heated ventilating-pipe should be allowed as sufficient, especially in city houses, when such ventilation is desired by the owner.

(5) Separate traps should not be required for each fixture. It would be better in many cases to have one trap serve several closely adjoining fixtures.

(6) The hydraulic test for piping should not be required, nor its requirement left to the judgment of a plumbing inspector. This kind of test is very expensive, and puts a strain on parts of the plumbing system far beyond what could ever be encountered in practice; and is one which, like excessive boiler-pressure tests, may result either in destroying the property at once, or in developing unseen defects liable to appear disastrously in the future.

In illustration of these principles, there are here shown in Fig. 1 two sections of a house on Beacon Street which the writer had to alter and enlarge some months ago. The plumbing, emphasized in this drawing, shows what the law required; and in Fig. 2 are shown simplifications which would have reduced the cost to considerably less than half — as well as very greatly have increased the safety and convenience of the work.

In the two-pipe arrangement (Fig. 1) there are two independent rain-water conductors, both trapped at the bottom before entering the house-drain. In the simpler arrangement a single conductor is used, serving also as the only soil-pipe required. It descends in an ample ventilating-slot, recessed in the party wall, about half way between the front and the back walls of the house.

It should be noted that the use of anti-siphon traps on the fixtures does away with all need of back-venting.

The present Boston plumbing laws (Act of 1907), and the laws of other cities generally, require that every enclosure containing one or more water-closets shall be provided with ventilation to the outer air by window or light-shaft. When the outer air is obtained from an interior shaft (called a "Vent Court") the smallest area allowed is fifteen square feet, the shaft to be at least three feet square, increased for every increase in building-height; so that this shaft, in a twelve-story building, must not be less than ten feet square, though the bottom intake there-to need have only four square feet area!

The bathroom shown in the two-pipe arrangement in Fig. 1 has an outer south exposure, with a window for direct light and ventilation; while in the one-pipe plan the bathrooms occupy

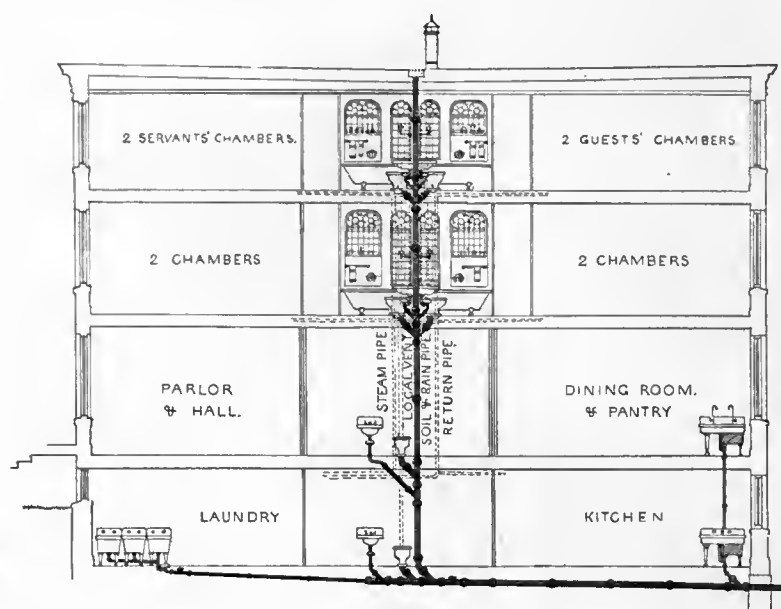


Fig. 2

less valuable space near the center of the house, receiving continuous ventilation by means of heated flues and ample artificial light.

This house is occupied only in the cold months of the year; is closed during the summer, and has only one narrow front on a sunny exposure. Hence, when the bathroom windows in the two-pipe arrangement are opened for airing, the ventilation acts of necessity in a direction exactly opposite to that intended; because the warmer column of air in the house rises to allow the colder and heavier column from without to enter. The result is that all the bad air in the bathroom — including all the imaginary disease-germs still supposed by many to be inseparably connected with plumbing-pipes — is blown straight into the house and distributed impartially through the various living-rooms, for the equal benefit of all the occupants. This, being lawful and fashionable, is still accepted by the unreasoning public as the best possible arrangement! The fact that the theory which prevailed twenty years ago, that sewer air swarmed with disease-germs, has long since been exploded does not in the least affect the arguments in this case; because the simpler system has always been the safer, for the reasons we shall soon review.

The simpler plan provides, as shown in Fig. 2 and in plan in Fig. 3, a constant, powerful upward and outward ventilation, carrying all bad air and possible odors directly out of the house; incidentally ventilating the entire building, doing its work automatically and without dangerous draughts necessitated by window ventilation. The flue here provides also a local vent without extra expense; whereas the two-pipe arrangement should also, by rights, have shown a local vent-pipe in addition to the others, still further to increase the excess of cost of the complicated over the simple system.

Now that modern science has shown that disease-germs do not abound in sewer air, but that, on the contrary, the water in the sewers reduces the number of germs in the air entering them from without, we know that direct sun's rays are not necessary

in bathrooms; and that, in fact, proper artificial lighting is actually preferable, because it furnishes in its heat the motive power adapted to produce or increase the room's ventilation.

On the other hand, sleeping and living rooms *do* need direct sunlight, so that the interior arrangement of the bathroom performs the double service of ensuring for it immeasurably better ventilation, and of reserving for the rooms which actually require it all window-space available.

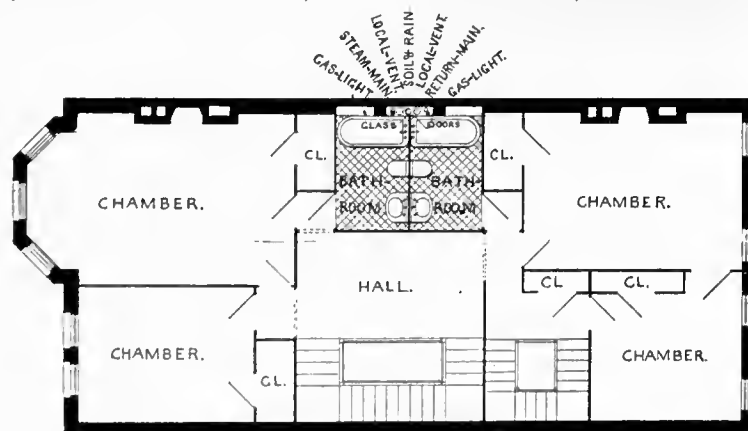


Fig. 3

In the complicated arrangement the use of extra heavy lead-caulked cast-iron pipes is enforced by law — partly because thinner pipes could not stand the severe strains applied by the caulking-iron and the hydraulic test, and also because shrinkage and settlement in the building are bound to fracture thin pipes and plumbing-fixtures where rigid lead-caulked joints are used.

The simpler plan, on the other hand, is designed to use flexible joints and abolish the use of lead caulking and the hydraulic test altogether. In this case, pipes of so-called "standard" thickness (weighing just half as much as the "extra heavy" pipes) are amply thick enough to serve with safety for a lifetime; and as flexible jointing has been proved to be permanently reliable and less than half as expensive as the utterly unscientific and unreliable lead-jointing now in vogue, we are able to cut in two the cost of both material and installation of every foot of cast-iron piping used in plumbing any building!

Finally, turning again to Figs. 1 and 2 we see that the "main house" or "disconnecting" trap, with its vent-pipe, has been omitted in our improved plan; in virtue of which, when this omission becomes general, the sewers will be so amply ventilated through every house-drain and soil-pipe that the air within them will surpass in purity the famous Paris sewers, now visited by thousands yearly as one of the sights of that gay metropolis.

Money-Savings to be Effected in a Single House

In the two-pipe arrangement (Fig. 1), the two four-inch extra-heavy soil-pipe stacks (the average number in city and country houses) have one hundred feet of pipe, forty joints, and eighteen fittings; and cost, for material and labor, including hydraulic and other tests, and the usual fair plumbers' profit, \$133.

One of these soil-pipes might be dispensed with, as shown in Fig. 2.

Next are two rain-water stacks, usual in city houses: either inside the house, to avoid freezing, or outside; one for the front and one for the rear. These cost \$115.

Where the combined system of sewerage is used both these pipes would be done away with; the soil-pipe stack being ample to take care of all water from the roof, while running the rain-water through the soil-pipe greatly improves the flushing.

We have next the four-inch main drain-pipe, costing \$85. Then the branch waste-pipes, costing \$65. Next the two stacks of useless back-vent pipes, with their branches, costing \$91.

Finally, there are the main house-trap and its fresh-air inlet, — involving at least twenty feet of four-inch extra-heavy piping, a dozen joints, and half a dozen fittings, besides the trap itself, — costing \$30: a fair average for this foolish obstruction to ventilation and sewage outflow. When the fresh-air inlet is carried to the roof (often considered advisable to take the sewer gas away from the street-level — on the same principle that all soil and drain pipes shall discharge no nearer than ten or fifteen feet to any window) then the cost mounts to at least double the figure that has just been given; but this addi-

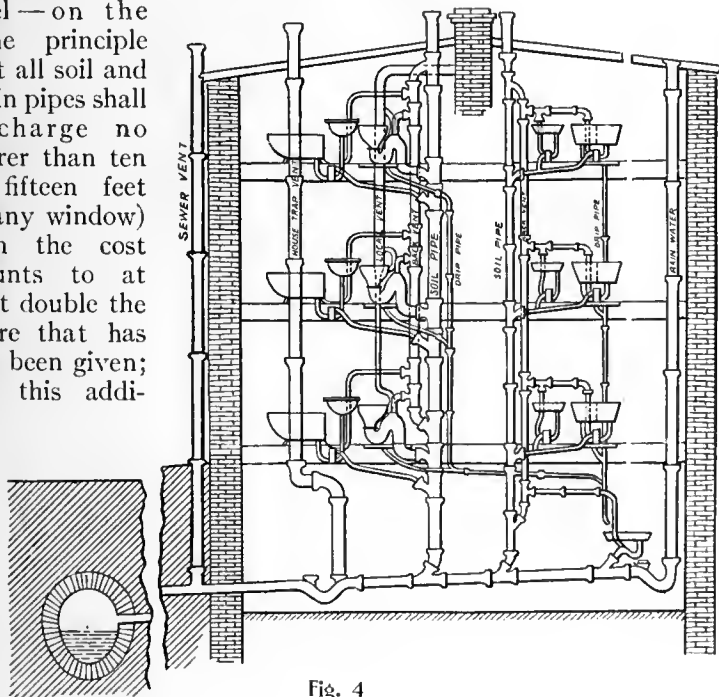


Fig. 4

tional upward extension, however, has not been included in this estimate.

Next, the average allowance for the hydraulic test for a building of this size would be at least \$25. The above items for piping foot up to \$615.

Good but simple cast-iron enameled fixtures would cost, with their traps, \$290. To this must be added expansion-joints in the main stacks (to diminish fracture in piping and fixtures due to building settlement or shrinkage, where rigid joints are used), for which a moderate allowance would be \$60. With the supply piping, the total is now \$965.

In this plan the upper-story bathroom occupies the southwest corner of the house, and has one window; both bathrooms being supplied with outer exposure, on the mistaken idea that outer windows with sun exposure are essential.

Turning to our one-pipe simpler plan (Fig. 2), where the bathrooms occupy the center of the house, the southwest corner becomes available for bed-chambers — in which direct sunlight and outer air are without question essential for complete sanitation. The extra bedrooms acquired by moving the main bathrooms from an outer exposure to the interior of the house mean a large increase in the actual, and rental, value of the house.

The cost of the single, flexible-jointed soil-pipe and its branches of "standard" thickness, allowed under this one-pipe plan, is \$51 — by the same plumbers' estimates as before, figuring in the same manner. The drain-pipe, also of "standard" thickness and flexible-jointed, figures to \$32. The testing of all the piping in this system, by a sensible, scientific smoke and low air-pressure test, costs only \$3.

The number of feet of piping in the entire one-pipe system, of all sizes and "standard" weight, amounts to only 115, as against 475 feet of extra-heavy pipe in the two-pipe system — equivalent to 950 feet of "standard" pipe; so the single system contains less than one-eighth as many pounds of piping as the complicated system, and the number of joints and fittings is reduced in similar proportion.

Assuming the same fixtures to be used in both, the total cost of the simpler sanitary system, including \$68 for setting fixtures, amounts to only \$155 — *almost exactly one-quarter* the cost of corresponding work in the two-pipe system!

Adding the cost of the fixtures, amounting to \$290, the total for the sanitary one-pipe system is \$445, against \$963 in the other — *less than half* its cost!

If we add the water-supply piping to both, we have a total of \$709, as against \$1,217 — or *a little more than half*!

But by the saving of the outer bathroom space utilized for one or two additional bed-chambers where, as is usual, both bathrooms have outer exposures, our actual money-saving must be increased by the value of these spaces saved. The average value of a house of this class per cubic foot is thirty cents. The bedrooms, measuring six feet by twelve, and ten feet high, give a cubical content of 720 feet; which, at thirty cents a cubic foot, gives an increased sale value of \$216 per room, or \$432 for the two. The

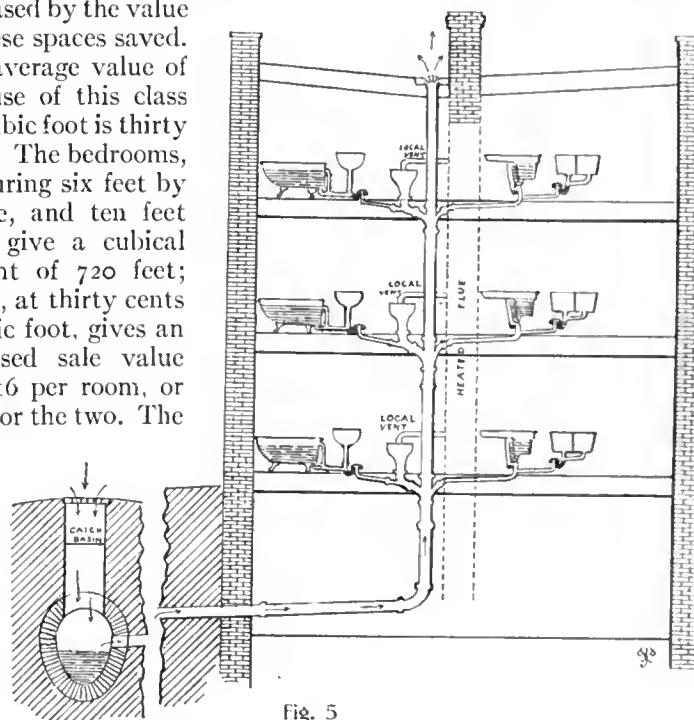


Fig. 5

loss of interior closet value from placing the bathrooms in the center of the house is nearly offset by the space and construction-cost of the three-story air-shaft and roof ventilating skylight, required for the lower water-closets in the two-pipe system.

It seems, therefore, fair to say that the luxury of outside window and sun exposure for these two bathrooms adds \$432 to the real cost of the two-pipe plumbing; which, comparing it with the single-pipe system, gives us \$1.669 for the real cost of the former, as against \$709 for the latter.

Under no form of reasoning can the greatly increased value of the property by the addition of two such sunny bedrooms be overlooked; *except* under the assumption that the conclusions of modern science as to the freedom of sewer air from disease-germs are unfounded, and by the old-fashioned idea that sunlight in bathrooms is needed for the purpose of destroying such sewer-germs, and that effective bathroom ventilation is obtainable only by temporarily opening win-

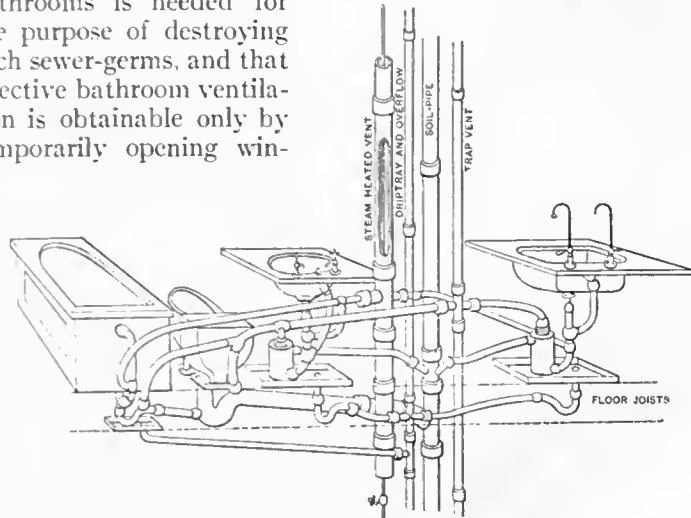


Fig. 6

dows upon the outer air, preferably to the scientifically regulated and constantly active suction of heated ventilating-flues.

Let us turn again to Fig. 2. The ventilating motive power installed in the house consists, first, in the main supply and return pipes of a vapor system of heating, and, second, in the heat of the lighting-burners. These burners furnish bathroom illumination superior to window light—not only because windows supply no light at night, but also because the shades must be drawn during the day for privacy; whereas cheerful and brilliant artificial illumination may be had at all times in inner bathrooms.

Direct fresh air may be even introduced at comparatively slight additional expense by a duplicate set of air-supply pipes built in the general heated flue. This direct air-supply will be tempered in cold weather by the adjoining steam and return mains, and by the light-burners; and its volume may be easily regulated by dampers. Both these refinements are practically unattainable when outside windows are alone depended upon.

Part of the saving effected by our new arrangement may properly be applied toward installing better plumbing-fixtures; and more of them. Accordingly, in the simpler plan, two complete bathrooms have been added to the outfit, and solid earthenware has been substituted for galvanized iron in the service-sinks and laundry-trays. In addition to this, automatic flush-pots have been installed on the sinks, forming an important measure of protection against grease clogging in the kitchen waste-pipes.

Money-Savings Totaled in City and Country

The amount saved by the simplifications advocated above becomes startling when applied to whole cities.

According to our census, the average of cost of all buildings annually erected in recent years, in the forty-nine principal cities of the United States, has been over six hundred million dollars per year. The average plumbing cost in these buildings is estimated by good authority at seven per cent of the total, making it forty-two millions annually—of which, according to our figures, between fifteen and twenty millions might have been annually saved!

For example, during the year 1906—rather better than the average building-year—the cost of new buildings erected in New York City amounted to nearly one hundred and fifty-six

million dollars, of which the plumbing probably cost eleven millions, from four to six millions of which might have been saved.

Chicago erected that year sixty-five millions' worth of buildings, four and one-half millions of which went into plumbing—and a couple or so of millions were thrown away; and Boston erected in the same time twenty-three millions' worth of buildings, throwing away between six and seven hundred thousand dollars in useless piping.

Both Systems Applied to Flats and Apartments

Figure 4 shows the waste system of a small apartment-house of three flats; and gives, in addition to two separate stacks of soil-pipes, also a set of "back-vent" pipes, as generally recommended and installed by plumbers to-day. There are also a separate rain-water stack, a main house-trap and its special ventilating-stack, similarly approved. Besides these, many advise a special stack for local vent, as well as a drip-pipe from the principal fixtures. Finally, in some localities, an exterior sewer vent-pipe is called for by the Sewer Department.

All of these, except the sewer vent, have been introduced in the same figure in order to present what many would consider an absolutely perfect piping outfit. It is copied from a drawing presented as a "model" by one of the leading plumbers in the country—except that there has been added, as a finishing touch, the drip-pipe frequently recommended for extra fine work. An exterior sewer vent to the roof should also be added where the disconnecting trap is used.

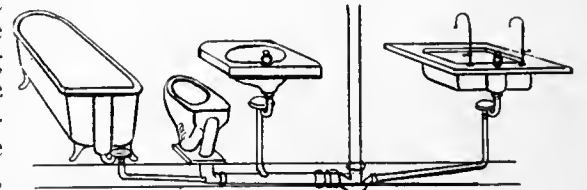


Fig. 7

Next, in Fig. 5, we see, for proper comparison, precisely the same fixtures, treated in the simpler manner!

Now, the laws in an ever-increasing number of cities and towns permit plumbing to be done in accordance with the simpler and more scientific system, which has been recommended by men of the highest engineering authority; and in view of the very great difference in cost between these two systems, it is evident that very strong arguments should be produced by those favoring the more complicated arrangement, before legislators or building commissioners are justified in compelling the public to adopt them instead of the simpler method. It would not be sufficient for their advocates to prove that their system was simply *just as good* as the simpler one; for the public would evidently prefer the latter as being less costly and easier to keep in order. They must prove two things more: namely, first, that the simpler system does *not* afford perfect safety; and, second, that the complex system *does* do this!

As a matter of fact, they have proved neither; whereas, on the contrary, the reverse has been positively demonstrated, both by experience and by modern science. It has been shown that the complication not only absolutely fails to perform the service expected of it, but that it has even introduced new and unexpected evils far greater than any it essayed to remove. It has also been clearly demonstrated that the simpler system actually is capable of furnishing complete protection.

The Evils of Back-Venting Traps

Figure 6 exhibits still more forcibly the absurd confusion this system leads to when we attempt to carry it out completely to its logical consequences. We have here the vent and waste pipes for four simple fixtures, taken, with some modification, from a house in New York; where they have been exhibited with pride by their perpetrators. These fixtures and arrangements are repeated on each of several stories. We have shown only the waste and vent pipes. When, to these, we imagine added the necessary hot and cold water supply and service pipes, we can form a pleasant idea of the condition of things our "branch waste" ventilating engineers are bringing about! These fixtures have the double vent, recommended by some who are still governed by antiquated notions or special interests. The upper vent enters a flue

or pipe heated by an interior steam-pipe, as shown, and is called "the overflow and local vent-pipe." None of the siphon traps used could withstand the evaporating action of these strong air-currents more than a few days, or even hours. In consequence of this, house-owners often close up the overflow openings of wash-basins and bath-tubs with putty or corks, in the hope of rendering themselves secure against the odors resulting from evaporated trap-seals. And this closure of the air-supply to traps through overflow passages, of course, greatly increases the danger of trap siphonage. In Fig. 7 is shown the modern simplified, and far more sanitary, method of installing these same fixtures.

Figure 8 shows a back-vent pipe, as it logically should be used, under the law, in a New York skyscraper, for instance. If enlarged as it goes up to provide against loss of effectiveness by friction, the least admissible diameter at the top of a thirty-story building would be ten inches! A simple calculation will show that, without such an enlargement, it would be a logical absurdity; and *with* the enlargement it becomes a still greater absurdity! The simpler system is shown by contrast in the same figure. There are twice as many fixtures on this stack, and yet the cost is less than that of its neighbor. Of course, immensely rich people might not very much mind this unnecessary expense; but the average man is obliged to forego having the best fixtures, and plenty of them, when his allowance for plumbing has

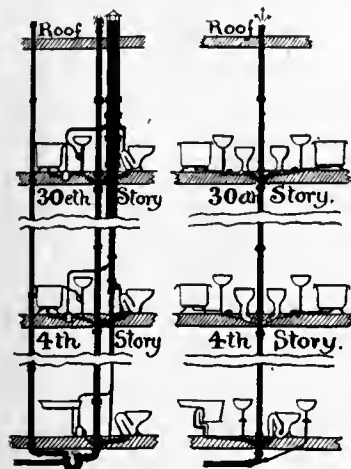


fig. 8

been exhausted by installing tons of useless iron and lead.

Mr. William Paul Gerhard, Sanitary Engineer, says:

"The fact is, S-traps with vents are perfectly safe only IF the vent-pipes are of sufficient area, IF they are not of too great length, IF there are no sudden bends and not too many of them, IF they are free and unobstructed, and IF their fixture is used every day. The conclusion is therefore inevitable that, as ordinarily arranged, vent-pipes are useless complications."

Mr. Gerhard should have added another "if;" namely, IF the increased air current, which it is their function to produce near the trap-seal, is not allowed to destroy that seal by evaporation!

"I wish," continues Mr. Gerhard, "that time would permit me to make a more elaborate comparison between the two methods, in order to impress upon you the important fact that the improved and simplified system is far superior to the one commonly required by rules and regulations."

"In Cologne, Germany, all back-air pipes which an investigating committee had cut open were found choked with either grease or coffee-grounds or cobwebs. In St. Paul, Minn., an examination by a plumbing inspector showed that from a total of twenty-three houses twelve houses had the vent-pipes from kitchen sink-traps completely stopped up by congealed grease and particles of vegetable matter or lint from kitchen towels. Of the eleven others, only one house had a sink vent-pipe which was perfectly clear and unobstructed, and this was found to be due to the fact that hot water and lye were used once a month in the pipes. In seven out of eleven houses a soft, slimy substance was found adhering to the interior of the vent-pipes for two or three inches above the crown of the trap; and in the other three the vents were partially stopped up. The vent from the S-trap under the kitchen sink in my own house has been found partially stopped up five times in ten years, and would doubtless have become entirely stopped up before the end of this period if I did not have it cleaned once a year."

"In northern latitudes, where soil and vent pipes above the roof may become closed by frost, traps will readily be siphoned under such conditions."

"Trap vent-pipes increase the liability of the seal of S-traps being destroyed by evaporation. The trap vent-pipe, if placed much below the trap-seal, does not protect the pipe against self-

siphonage or loss of seal by momentum. This is a point to which very little attention has been paid."

The late Colonel Waring stated that: "Continued experience and observation tend more and more to confirm the opinion that the back-venting of traps, aside from its great cost, does more harm than good; that is to say, that a trap is more likely to lose its seal if it is back-vented than if it is not."

An English expert on drainage called "a diagram of house plumbing protected by ventilation-pipes as prescribed by most American authorities a bewildering nightmare of complicated ingenuity," to which statement many will doubtless heartily assent!

The Use of Anti-Siphon Traps

We come now to the consideration of anti-siphon traps, or those which require no back-venting. I quote from *Modern Sanitation* of September, 1907:

"A condition that recommends itself to all who are interested in sanitation is the requirement that non-siphon or refill traps successfully withstand a prescribed test before being put on the approved list. By having a standard test for traps, and a code that permits the use of any trap passing that test, the door is shut against favoritism or a discrimination against any individual or firm who wish to have their goods used. A standard test for non-siphon traps that is fair to manufacturer and at the same time safeguards the public should be adopted by every city in the Union having plumbing laws. This test should be uniform throughout the State . . . then if a firm or individual designs a new type of non-siphon or refill trap they can submit it for a test without fear of favor, and have it adopted or rejected on its merits or demerits."

"Objection to the use of non-siphon and refill traps in many quarters arises from the mistaken opinion that the use of such traps, by cutting down the amount of plumbing-work in a building, interferes with the profits of the plumbing contractors. Such an opinion is wholly wrong. In fact, the converse is true. More profit is to be realized from the sale of goods than from the labor of installing them, and a house-owner who can install two bathrooms, or one bathroom and some bedroom lavatories, with non-siphon traps for what he could pay for one bathroom with a whole lot of unnecessary vent-piping concealed in the walls and partitions will install the former every time. The plumbing contractor makes his percentage of profit on an instalment of equal amount without an equal amount of work; consequently, his profit is greater, for if he turns over a ten per cent profit in two weeks, his net profit, time considered, is greater than if the same work took four weeks. Furthermore, with a given capital, a greater volume of work can be handled each year, thus increasing the gross profit in a business."

"As a corollary to the foregoing, it can safely be said that the plumber who gives his patron two bathrooms with non-siphon traps for a certain price will meet with far greater success in his business than his rival who fits up but one bathroom with vent-pipes for the same price. It is pleased customers that advertise your business, and the best way to please a customer is to make every dollar paid show in fixtures."

Trap Tests and Testing Apparatus

Every City or State Building Commissioner's office, or Board of Health, should be equipped with some simple form of trap-testing apparatus. It is possible in testing to produce a strain equal to a vacuum of twenty-six inches, and we find anti-siphon traps capable of resisting, unvented, this strain many times repeated, without refilling.

The vented S-trap, on the other hand, is incapable of resisting a vacuum of a single inch, when the vent-pipe is long and crooked, or when it is partially roughened or closed by deposits. A few inches of vacuum will destroy its seal, even when the vent-pipe

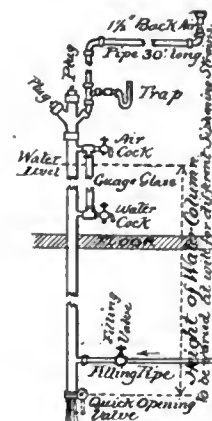


fig. 9

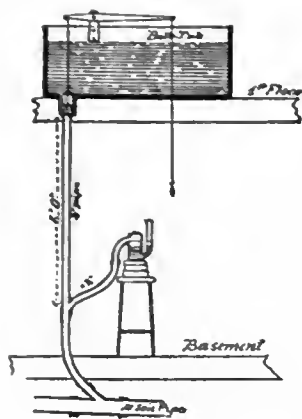


Fig. 10

is new and clean, and as short and straight as it is possible to make it in practice.

One of the best forms of testing apparatus (Fig. 9) was devised by Mr. William Atkinson for use at tests made for the Peter Bent Brigham Hospital. The filling-pipe and quick-opening valve are here placed at the bottom instead of the top; and by this arrangement any desired siphoning strain is obtained with absolute accuracy—an evident advantage never before attained in any hydraulic appliance, and yet one which is essential where scientific precision is desired.

The whole apparatus can be built within an office of the ordinary height, as it permits of the generation of enormous strains by the total elimination of the friction encountered by water descending through an empty pipe.

With a simple form of testing apparatus one stands entirely independent of outside testimony as to the relative efficiency of trap-venting and the anti-siphon systems. There remains no excuse for any doubt in the matter; and no one thereafter would dare to publish inaccurate or misleading statements, knowing that any Board of Health or Building Inspector's office could immediately and authoritatively refute them. Figure 10 shows how simple an apparatus is capable of exerting a siphoning strain on traps severe enough to break the seal of a six-inch pot trap, and completely to empty an ordinary S-trap, fully and newly vented. Figure 11 is a diagram of tests on several kinds of traps, made for the Board of Health and others, on this apparatus. The figures under each trap show the number of siphoning strains or tank discharges applied without refilling, and its effect on the trap-seal.

This little apparatus was built for a few dollars. It would certainly be for the interest of the public, in encouraging invention and improvement in this domain, for the law to require every city or State to furnish the apparatus needed for the execution of the tests it exacts—for the purpose of establishing a scientifically uniform standard of examination, and subjecting every trap to precisely the same conditions and strains.

The requirements of the Boston Building Department Tests specify that the trap tested shall be subjected to siphoning strains severe enough to break the seal of any vented siphon trap now approved for use in that city. Why should not the vented siphon traps be required to stand the same strains that are exacted of the anti-siphon traps?

But the most remarkable requirement in the tests exacted by that Building Department, and the one most to be criticized as bringing it into the category of special legislation favoring a single article or type of article to the exclusion of all others equally good or better, is the clause in which an initial depth of seal of four inches is demanded in every trap before the test and of one and one-half inches after the test; and equally or more to be criticized is the requirement that every trap shall have a water area of at least two and one-half inches in diameter.

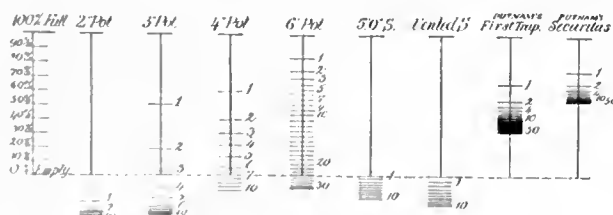


Fig. 11

These astonishing requirements debar every form of trap except those long condemned by sanitarians as cesspools (including a patented trap which has exactly four inches of seal and two and one-half inches area!), and also exclude the use of the new principle of sanitary trapping which enables a lavatory trap completely to protect from siphonage the water-closet trap, thereby doing away with back-venting altogether, and dealing a final death-blow to this pernicious system!

These department test requirements do not, however, debar the use of concealed partitions for producing the trap-seal, although this construction is regarded elsewhere as so serious a defect as to be rigidly prohibited; for the reason that the partition's corrosion out of sight opens a direct entrance for sewer gas into the house without warning to the occupant.

Cesspool and Shallow Traps

The cesspool order of traps is objectionable not only because its accumulations of putrefying organic matter generate nauseating and dangerous gases, ready to enter the house through every leaking lead-caulked joint or evaporated trap-seal, but also because these accumulations, multiplied by hundreds or thousands in cities and towns, nullify the first principle of sanitary engineering and render it impossible to discharge the sewage in its fresh condition into river and sea. Putrefying sewage is poisonous to fish, as it is to other animal life. Particularly objectionable is the pot, or cesspool, trap when constructed of easily corroded metal, because the acid gases arising from the putrefaction within often corrode the metal; as shown in Fig. 12—taken from a building in this decayed and porous state. What will corrode lead and brass is certainly not good for human lung-tissues, and these requirements should be radically altered—even if only to allay public suspicion as to the motive of the restriction. People desirous of submitting improvements are discouraged from making any attempt to do so by this seemingly arbitrary and prohibitory rule.

A prominent lawyer recently announced his intention to test the right of the building authorities to oblige him to install back-air pipes with his anti-siphon traps—on the ground that the form of the anti-siphon trap, together with its inlet and outlet pipes, provided in itself the best possible and only permanently reliable back-air pipe, as their efficiency could not be destroyed by clogging or evaporation. Closure by clogging would stop the outflow of water and render cleansing imperative. Their principle of construction is such as to allow the air of the room to pass through their own seal without injury to them, and then to pass on and up to the roof through the waste and soil pipes, thus attaining what the law must accept as the only permanently effective back-air pipe possible. He claimed the inspector could not oblige him to adopt that one of two methods of back-airing which had proved without question to be both unreliable and short-lived, when another method, well known to be both reliable and permanent, was contained in his anti-siphon traps and their waste-pipes.

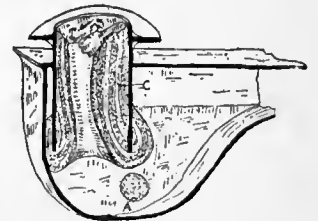


Fig. 12

Figure 13 explains the manner in which the horizontal-trap principle protects the seal of an adjoining water-closet or other deep-seal unvented siphon trap. The trap proper is the shallow U-bend shown under the fixture outlet; a shallow refilling chamber equivalent to a horizontal coil of round pipe connected with this bend and standing between it and an adjoining water-closet trap refills the bend after every siphoning action—and yet, in virtue of its shallow construction, cannot itself be unsealed. This constitutes one of the novel features of the Securitas trap. This drawing, and Fig. 14, show that its shallow form serves to permit its use with bath-tubs entirely above the floor finish, thereby being not only completely accessible, but saving objectionable floor cutting and disfigurement. It also shows a single trap serving two fixtures, and protecting all three from siphonage. The basin-trap has here the advantage of the powerful bath-tub flushing, which more than offsets the slight disadvantage of the small increase of piping between fixture and trap. Just as no odor worth considering comes from the ordinary overflow pipe of a bath-tub, always being open to the room from the trap up, so the extra eighteen inches of pipe shown from the foot of this overflow-pipe to the trap, receiving the full and constant flushing of the comparatively clean bath-tub water, will always be practically clean and odorless. The tub, when full of water, moreover, fills also, when it is discharged, the basin outlet-pipe as high as its own level, reduced slightly by friction. Hence this

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basin outlet receives a better and cleaner flush than in the usual arrangement, in proportion to the greater cleanness and strength of the bath-tub water discharge over that of the basin, as ordinarily constructed and used.

Since these statements cannot be understood without an interior view of the trap, Fig. 15 is necessary, showing so clearly the exterior and interior appearance and construction that further explanation is superfluous, all parts of the waterway being nearly equal in area to that of the waste-pipe itself. But since a proper scour can be obtained only when proper flushing is provided, fixtures with large outlets, and especially those constructed on the principle of an automatic flush-tank, are to be recommended for use with traps. Even a straight pipe will collect sediment if dirty water is allowed to trickle through it for any length of time and no regular flush is provided — let alone a trap, which slowly collects dirt



Fig. 14

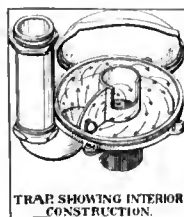


Fig. 15

around the inside. The amount of deposit will evidently be inversely proportioned with the speed of the flushing stream and the area of the passageway. As a bath-tub produces the maximum of flushing effect, use should be made of it to flush as many traps as possible. This trap has the minimum of sediment area, next to a straight pipe or a common S-trap or coil of pipe, and yet most present laws take no cognizance whatever of this important matter; and while exhibiting the utmost apparent anxiety in regard to the existence of a few extra inches of waste-pipe between the fixture and its trap, our Building Departments often pronounce in favor of cesspool traps and debar those of the most scientifically self-cleansing order, while the law itself takes no notice whatever of the vital necessity of a proper flushing construction for lavatories and sinks.

Integral Grease-Traps and Flushing Apparatus

The exceedingly valuable if little known inventions of Waring (Fig. 18) and Gerhard (Fig. 19) for this purpose are also shown, as applied to kitchen and pantry sinks, — which, however, have never received the slightest recognition, so far as I am aware, in legislation, — and Fig. 20 shows my own device, producing the same result absolutely automatically.

Next, Fig. 16 shows the effect on cesspool traps of improper flushing — effects of constant occurrence, well known to every architect and plumber. The old-fashioned D-trap is shown incorrectly placed on one side, because it was taken from a chapter on "Plumbing" incorporated in an otherwise excellent recent medical work, and reproduced here just as it was to show that the medical profession is still somewhat backward in comprehending the scientific principles of sanitary plumbing! The doctors are scarcely to be blamed, because they are not responsible for house construction, and the plumbing laws make far greater blunders in this domain than our medical friends; but what is to be said for the architects of the country if they continue to allow the condition of affairs shown above longer to exist — or

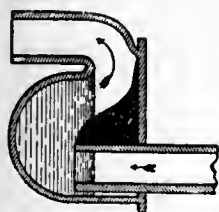


Fig. 16

such stupendous iniquity as has been exhibited in Boston in the substitution of the present Act of 1907 for the excellent bill of the City Commission to go unchallenged by the entire profession for perhaps another six years?

Before passing on, your attention should be called to the fact that the vented S-trap in Fig. 17 is also taken from the doctor's chapter on "Plumbing." He introduced it to show how, even under sinks, a simple siphon trap will keep pure and

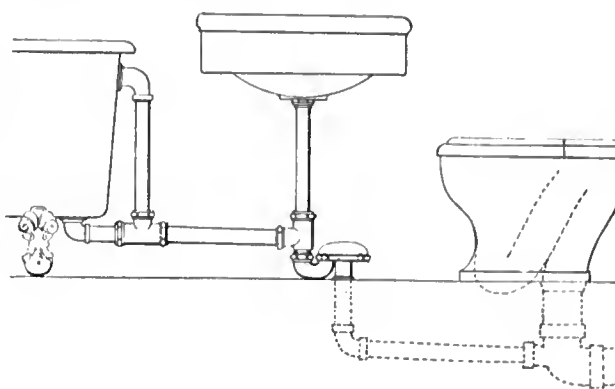


Fig. 13

of fact, the mouth of the vent-pipe will clog even easier than the unscoured portions of the D or pot trap; because the warm, fatty vapors rising in the vent-pipe will deposit and congeal more or less grease along its cool sides to add to the deposits by splashing and liquid contact. In short, the mouth of the vent-pipe forms an unscoured "pocket" quite as dangerous as any of those, now universally condemned, which constitute the characteristic defective feature of all "cesspool" traps.

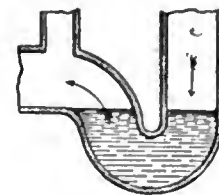


Fig. 17

If the D, or any other form of cesspool trap, actually clogs, at times, as the doctor rightly says it does, until the passageway gradually approximates the form of the S-trap, as shown in Fig. 21, then evidently the vent-pipe mouth at the top of the cesspool trap will eventually be shut off by this same deposit — and, whether the S-trap be constructed of grease or of lead, its vent-mouth will be similarly closed!

Any one making a full and careful study of the records now obtainable of the effects of breathing sewer air must come to a conclusion somewhat as follows: The danger from inhaling sewer gas is in proportion to its concentration and poisonous composition. Where cesspools or foul and ill-ventilated sewers are used (as is frequently the case in unprogressive, badly administered, and ignorant communities —

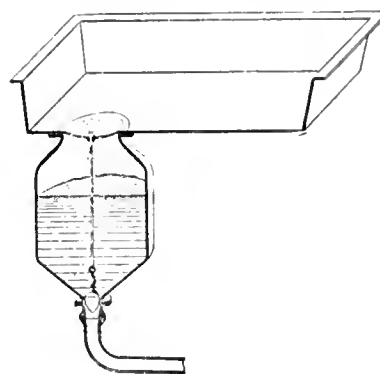


Fig. 18

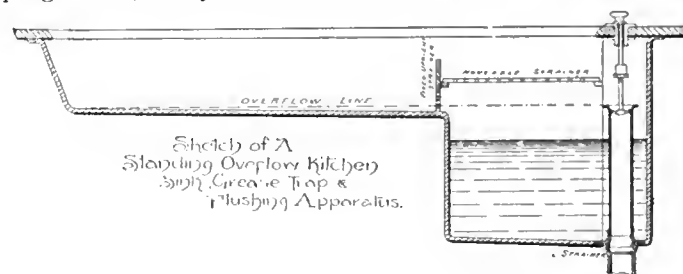


Fig. 19

and very frequently in small towns and villages) the dangers may be serious and constant; while where a well-ventilated and well-constructed sewerage system has been provided — as in the best administered large cities — the danger is comparatively small.

Nevertheless, decomposing organic matter accumulates more or less along soil and drain pipes of houses, as they are usually constructed, even in the best sewer cities; and the products of such decomposition, if continuously breathed, tend to produce a general impairment of the health, predisposing the sys-

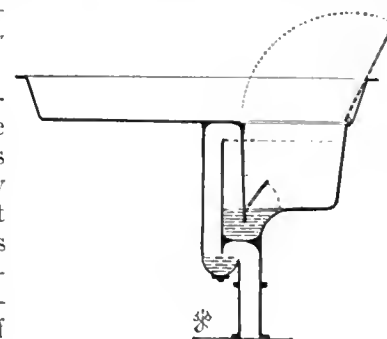


Fig. 20

tem to infection, and lowering the vital forces of resistance to any form of specific disease. Every possible precaution, therefore, should be employed to exclude sewer air from the house; and the conclusions of investigators that disease-germs do not abound in sewer air should not lead us to the fatal error of underrating the danger of breathing air contaminated by the foul gases of decomposition.

Flexible and Inflexible Soil-Pipe Jointing

We come now to our last, but not least, subject for complaint; namely, the exceedingly unwise requirement as to cast-iron pipe jointing. The lead-caulked hub-and-spigot joint is entirely unscientific, unsanitary, very expensive, and absolutely unsatisfactory. Instead of being required by law, it should be prohibited, both because it is rigid and subject to fracture under slight pressure occurring by street or building settlement or shrinkage, and because its construction and materials render it incapable of standing the hot water and steam encountered in its ordinary use. The iron pipe's expansion under heat compresses the lead caulking, which, being inelastic, never returns. The result is inevitably failure. At first a small annular opening for leakage is produced between the lead and the



Fig. 21

iron; but a constant repetition of the action ultimately forces the lead out of the joint altogether, the speed of the disaster being in proportion to the degree of variation of temperature in the pipe system.

Mr. Gerhard well says: "There is scarcely another detail in a system of drain-pipes for a dwelling in which so much rascality or criminal stupidity is shown as in the manner of making joints in iron pipes, and this is especially the case whenever architects or builders tolerate such pipes to be built into walls; inasmuch as, under such circumstances, defective joints are readily covered up and brought out of sight. The manner of applying the gaskets of oakum; the quality of the melted lead; its purity; the temperature to which it is kept in the pot on the fire; the manner of pouring the lead; and, finally, the operation of caulking it after shrinking; — these are all details worthy of careful consideration, but, unluckily, seldom looked after in plumbing a dwelling. . . . It has been my personal observation that honest and conscientious plumbers — with the best possible intentions to do only first-class work — were frequently unable to caulk the lead of joints sufficiently tight without splitting the hub of the pipe. In other cases the joint could not be made tight, owing to the impossibility of reaching all parts of the lead in a joint with the usual caulking-tools, because of the soil-pipe being located in a recess or partition."

A scientific flexible joint would enable pipes of "standard" thickness to be used where now "extra heavy" are required to withstand the strain of the hand caulking necessary under this unscientific construction.

Figure 22 shows the "Securitas" flexible joint. The outer hemispherical portion around the spigot is made of Portland Cement, cast rigidly upon the spigot, very hard and smooth and thinly coated with paraffin. The under half is composed of a wonderful substance having the nature of an unchanging, bituminous base combined with a non-drying oil, and constituting an apparently practically permanent, pliable, sticky mass, unaffected by such variations of temperature as occur in plumbing, gas or water carriage. The cost of the packing and its introduction is about a quarter that of lead caulking for the same sized pipe — and the use of fire for melting is avoided. The joint can be rotated a certain distance under light or heavy pressure, without leakage

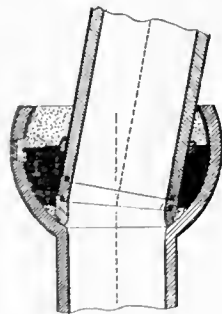


Fig. 22

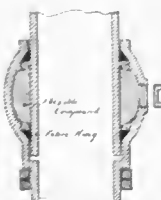


Fig. 23

— as has been tested for the last six years, the pliable filling being apparently as yielding now as it was at the outset, retaining all its original qualities.

Figure 23 shows the form of joint used when longitudinal movement is required. In this case the Portland Cement is not used, but the whole interior space is filled with the pliable packing. The rotary joints are used in all bends and fittings, and the longitudinal ones on the straight pipes.

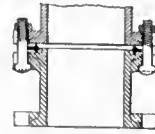


Fig. 24

The other sectional drawing, Fig. 24, shows the "Securitas" rigid joint, the black, star-shaped sections representing a lead ring, designed to be compressed by heavy ratchet wrenches.

Special Legislation

Regarding the special legislation required to permit the installation of the simplified method of plumbing, there are appended certain sections from a Plumbing Code compiled while acting as expert for three different cities, in the revision of their plumbing regulations. For the section relating to the use of anti-siphon traps, I recommend simply the following:

Section 5. Traps. The waste-pipe of every plumbing-fixture shall be connected with a non-siphoning water-seal trap having an air-tight and water-tight clean-out of sufficient size to give convenient access for cleaning all parts of the trap. Back-air pipes for special trap-venting shall not be used.

Where, however, it is found necessary to respect a prejudice still existing in favor of back-venting, the use of either the simple or the back-vent or two-pipe system should be left optional with the owner. But if the back-air system is chosen, it should be subjected to as rigid a regulation as the anti-siphon system, and to this end the following provisions have been framed:

Section 11. Back-Air Pipes will be allowed as protection for traps against siphonage when they stand the same test connected with the trap which is applied as standard to non-siphoning traps. For test purposes vent-pipes made of tubing and connected up as shown in Fig. 10 shall be employed. A sufficient number of pipe lengths and bends shall be used in the test to produce an amount of air friction corresponding with that of the vent-pipe to be used in the actual building.

Back-air pipes shall not be accepted as protection against siphonage for kitchen or pantry sink traps, nor for any trap regularly used for discharging greasy waste.

All back-air pipes shall be provided with clean-out screw caps at every ninety degree bend or vertical runs, for the periodical removal of rust-flakes or other deposits; and these caps shall be opened and the deposits removed as often as they accumulate in quantity sufficient to reduce the bore on the pipe by one-third of its area, whereby its effectiveness in protecting the trap from siphonage may be destroyed.

Suitable provision shall be made to prevent the upper end of the back-air pipe from being obstructed by frost or snow in cold weather.

The joints of all back-air pipes shall be tested for tightness, as elsewhere provided.

Section 12. Mechanical Vents. Where mechanical vents are accepted as meeting the requirements of this section, suitable provision shall be made to ensure their mechanical parts against being rendered inoperative by rust, sediments, or other cause.

Section 13. Protection of Water-Closet Trap-Seals. A shallow seal non-siphoning or refilling trap shall be accepted as a suitable back-air vent for a water-closet siphon trap, provided the trap shall have proved acceptable under the standard test, and provided it shall be placed near enough to the water-closet trap to be effective, and provided the depth of seal of such non-siphoning or refilling trap shall yield to the siphoning strain and admit air to break the vacuum before the deep seal of the water-closet trap is affected.

Section 14. Evaporation. The test for resistance to evaporation shall consist in connecting up the trap with the testing apparatus, closing the valve, and allowing the trap to stand for thirty days without refilling. The trap shall be accepted as fulfilling the requirements when it shall be found to have lost less than one-tenth of an inch of its seal through evaporation in this time.

When the trap is a siphon trap or intended to be protected by a back-air pipe, the test apparatus of back-air pipes (Fig. 10) shall be applied, and a current of air shall be induced through the back-air pipes by means of a suction pump or fan at a speed of one foot a second as measured by an anemometer. If less than one-tenth of an inch of the trap-seal is removed by evaporation in thirty days under this test, the trap and its back-air pipe shall be accepted in this respect.

Section 15. Back Pressure. For preventing back pressure all soil-pipes shall be connected with the horizontal drains and all horizontal runs by long bends, and no running or other trap of any kind shall be permitted in the horizontal drains or between the house-drain and the public sewer.

Section 16. Clogging. To prevent clogging the discharge of all fixtures shall be so constructed as to permit of the waste-pipes being filled "full bore" after use, and no trap shall be accepted which shall contain at any part a cesspool chamber having a sectional area measured at right angles with the flow of the water current through the trap of more than three times the sectional area of the inlet arm of the trap. Exception shall be made for grease or other special traps, as elsewhere provided.

Section 17. A Single Trap for Several Fixtures. Several fixtures may be connected with one trap, provided the trap is not over five feet from the outlet from any fixture.

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PLATES

PLATES XIII.—XX.—JEFFERSON COUNTY SAVINGS BANK, BIRMINGHAM, ALABAMA (PLANS, ELEVATIONS, AND DETAIL DRAWINGS) — WILLIAM C. WESTON, ARCHITECT.

THE Sovereign Commonwealth of Massachusetts, through its Board of Panama-Pacific Managers, has notoriously failed to fulfil obligations implied in a competition that typically illustrates how these affairs work general injury and injustice to the architectural profession. This board of five members,—three men and two women,—Peter H. Corr, chairman; George Mead, Alexander Sedgwick, Mrs. John Hays Hammond, and Mrs. Charles S. Hamlin, violated, without explanation or apology, one of the most specific clauses in their contract with the architects competing for the Massachusetts Building at the San Francisco Exposition. As yet the Commonwealth has failed to censure its representatives for repudiating their own agreement; and, as usual, the gullible architects alone are left to suffer! In attempting to uphold the dignity of the profession of architecture,—which, indeed, suffers more neglect from the carelessness of its professed followers than from any other cause!—we publish the established facts; carefully preserving the names of those ladies and gentlemen who were clever enough to “put one over” on the Institute in getting its approval on this program, “joker” and all.

This Board of Panama-Pacific Managers received a communication promising such assistance by the local Committee on Competitions as persuaded them to accept the invitation; a professional adviser, Mr. James Knox Taylor, was appointed; a program drawn up that was approved by this committee as wholly satisfactory: Mr. R. Clipston Sturgis, then president of the Boston Society (now president of the American Institute) being that committee’s chairman. This program contained a legal agreement binding the Board of Managers to announce the successful competitor “within thirty days of the date set for the submission of the drawings,” which was Nov. 20, 1913; as well as so obviously unjust a clause as permitted them to set aside their jury award, and select *any other plan* preferred,—in return for which privilege they were merely required to pay the inadequate sum of \$50 to each of five mentioned competitors!

Under this program twenty-five designs were submitted, of which nearly half attempted some variant of the “Bulfinch State-house.” After the jury, appointed by the board’s professional adviser, and consisting of Mr. J. Randolph Coolidge, Jr., Mr. Allen Cox, and Mr. Edward H. Hoyt, had made their report, recommending one design for award and suggesting improvements to better four others (the program liberally permitting the board to select from among five!), the board requested them to approve still another set, which the board believed superior to any the jury had chosen. This the jury very properly refused to do; and so the Panama-Pacific Managers, on Jan. 22, 1914 — over two months after “the submission of the drawings”!

—announced (entirely in accordance with the provision inserted into the program for that purpose) their acceptance of the design, *not* mentioned by the jury, of Wells & Dana!

Mr. Desmond (*not* a member of the Boston Society of Architects; as is one of the accepted firm!), whose plans had been placed first by the jury, protested this decision; and at an unofficial State-house hearing, and an investigation by the Boston Society of Architects, the following additional information developed: that Wells & Dana had made sketches for the board before the competition was undertaken (they are said to have claimed — and they have specifically *refused* to *deny* making such claim! — that, until the Committee on Competitions proffered its assistance, they had the building to do!); that Mr. Wells was a personal friend of the board’s chairman; that the board preferred their plans because their Convention Hall was upon the first floor; that their first floor was seven or eight feet above ground, instead of “approximately four feet,” as required in the program; and their perspective showed an “architectural accessory,” the “Beacon Monument” on Beacon Hill,—claimed as a “distinguishing mark” in violation of the program. It also appeared that, of the members of the board, Mr. Sedgwick alone was alive to the nice points of honor involved; and that both women failed to exercise their individual suffrage,—one by absence; the other by casting her vote on the chairman’s representations, being influenced against the plans the jury had recommended by certain criticisms quoted from their report.

While the unofficial hearing failed to obtain justice for the competitors, it made public certain facts — and Mr. R. Clipston Sturgis, introduced as representing Mrs. Hamlin, but reannouncing himself as president of the Institute (a mistake that, when pointed out to him, he, long afterwards, acknowledged), reviewed the case; showing that the board, while desiring the hall located as on Wells & Dana’s plans, had yet failed so to inform their professional adviser, hence that fact was *not* in the program, thus misleading the competing architects and the jury (who, of course, judged the designs in conformity with the program!), and leaving Wells & Dana alone in their possession of this information. Mr. Sturgis further ventured to criticize the jury for being “ill advised” and “exceeding their authority” in criticizing their selected designs. The members of the board, lacking all appreciation of their obligations in honor to abide by their program, retained adviser, or their Jury of Award (but yet acting within the strictly *legal* rights of the program the Institute approved!), set the entire competition aside in order to accept the “plans” of their original architects, in most flagrant disregard of that clause in the Institute’s code which states that “the owner should feel bound, not only legally, but in point of honor, to retain as his architect the competitor to whom the award is made”!

Results: that any “contract” between competitors and holders of a competition, incorporated within a program, amounts to nothing — so far as binding those holding the competition is concerned (in this case the board exceeded, at least, the limit within which they agreed to render their decision); that the Institute is incapable of guaranteeing that provisions of an “approved” program be carried out, the adviser properly informed, or the decisions of the judges respected. (This instance exactly illustrates how the machinery devised by the Institute to receive its approval clumsily avoids vital fundamentals, as we have previously stated; and the whole complicated system, seen in the light cast by this experience, appears even more farcical than before so pretentious an attempt was made to “regulate” and legalize the competition!)

Mr. Sturgis’ utterances at the State-house were unfortunate: they served to discredit the Institute’s approval of the program, and the acts of the jury; questioning the “rights, powers, and authority” of the jury, which have never been established by the Institute; while, as reported (and not denied!) they were accepted as whitewashing the board, and justifying its refusal to accept the jury’s selected design. In short, his appearance served no other apparent purpose than to save the Board of Managers from blame,—including, specifically, one of its feminine members,—seeming preferably to transfer it instead upon the Jury of Award.

(From "Architecture")



Exterior, St. Thomas' Church, New York City
Cram, Goodhue & Ferguson (N. Y. Office), Architects

MOST of the January magazines "feature" St. Thomas' Church, which far better withstands the searching glare of the limelight than many of its predecessors on this stage! January *Architecture* gives perhaps its best presentation, with carefully chosen photographs that are nevertheless themselves lacking in color and tone. Mr. Alfred Hopkins' Court-House and Prison of the Inferior Jurisdiction, New York City, is a similar, if simpler, problem to the Hamilton County Court-House, illustrated in our December number, with an exterior adapting the Florentine palace to the altitude of a New York sky-scraper! Mr. E. D. Litchfield's house groups at Jamaica, L. I., are shown again (after an earlier presentation in *The Record*), and those in unpainted brick seem rather the more Colonially attractive.

The January *Brickbuilder* appears with plates in a brown tone and an attractive title-page by Mr. O. R. Eggers, whose drawings are memorialized in this same issue, with one of the drawings we published in October used as a frontispiece. Architectural acoustics seems—from space given it in the magazines!—about the "newsiest" subject before the profession, and another contribution by Mr. Sabine is this month's leading article; followed by continuations of "Lighting" and "Quantity Estimating," and another of the late Mr. Burnham's Chicago bank buildings—with St. Thomas' Church also wiggled in as the first of a series on "Distinctive American Architecture!" The plates show fewer subjects than usual,—and more illustrations of each,—possibly presaging a new policy for this magazine. Mr. John Russell Pope's recent brick house at Washington lacks the refined dignity of his Hitt house, or the picturesque charm of his brick McLean residence; but the interiors are interesting because they partake of the rather homely, old-fashioned type that followed the neo-Greek period in this country. Garber & Woodward's Cincinnati Public School is conventional, with details of mingled large and small scale, based on Tuscan

Current Periodicals

A Review of the Recent American
And Foreign Architectural Publications

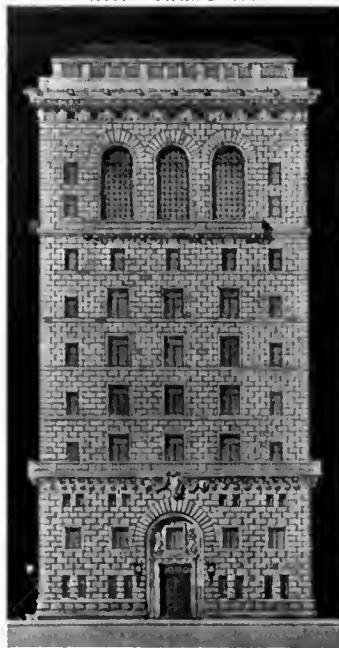
(From "Construction")



Art Gallery, Montreal, Canada
E. & W. S. Maxwell, Architects
(From "The American Architect")



Recitation Building, Boston College, Newton, Mass.
Maginnis & Walsh, Architects
(From "Architecture")



Accepted Design, City Court-House and Prison, New York
Alfred Hopkins, Architect
(From "The Western Architect")



Great Northern Station, Minneapolis, Minn.
Charles S. Frost, Architect

(From "The Brickbuilder")



Nave, St. Thomas' Church, New York City
Cram, Goodhue & Ferguson (N. Y. Office), Architects

brickwork. An over-solid wall, transcribing various idiosyncrasies of brick treatment, is the principal characteristic of Donn Barber's City Club at Atlanta, Ga.; while the Phillips Exeter Library, by Cram, Goodhue & Ferguson (office *not* stated!), is hardly as successful as previous Georgian designs by this same firm, and Mr. Chandler's house at Cambridge is of unwieldy dormitory proportions, with interiors of somewhat too cottage-like Colonial simplicity.

The January 14th *American Architect* shows Maginnis & Walsh's very successful start for Boston College on land overlooking the Brookline Reservoir at Newton, Mass. The principal charm of the building—built of a local stone found on the site, of a greenish-gray tone, with a dull grayish-green tile roof, and supplying an unusual color-note in the landscape—does not appear in these photographs. "Early Dutch Colonial Architecture" is described on January 7, with several residences, including an English brick-and-plaster house at Winchester, by Warren & Smith,—the rather narrow effect of its frontage being emphasized by its entrance feature; Mr. Lovell Little's Waldo house in Brookline, designed for terra-cotta blocks; and several detail views of work by Elmer Grey.

January 21 contains the ninth of Mr. Koester's series on "American City Planning," with foreign illustrations; and plates of an attractive stone-Colonial house at Bryn Mawr, by Mr. Percy Ash, with garden and stables; and student work.

The issue of January 28 is wasted on an example mis-labeled "Landscape" architecture (*sic*) in Washington—more remarkable for blank wall treatment with over-elaborate treillage in perspective (even including an imitation peacock—in trelliswork!) than any conceivable merit, "architectural," "landscape," or otherwise!

The Architectural Record for January again illustrates the Princeton Graduate College, by the Boston office of Cram, Goodhue & Ferguson—this time with a number of Mr. Buckley's photographs and a general plan that helps coordinate the pictures (already

(From "The Brickbuilder")



Entrance, House at Washington, D.C.
John Russell Pope, Architect

(From "Architecture")



Houses at Jamaica, L. I.
E. D. Litchfield, Architect

(From "Architecture")



Doorway, House at Jamaica, L. I.
E. D. Litchfield, Architect

reproduced here from a previous illustration). A following article, under skull and cross-bones, directs attention to an instance of architectural plagiarism; but unfortunately the editor lacked the stamina to drive this soft impeachment home by plainly naming those responsible! Views of the loggia to the Pietro Massimi Palace in Rome; articles on "Apartment-House" and "Architectural" Furnishing, with characteristic old and new interiors; and an old Greenwich Village street are interesting side-lights on architecture — while its "Textile Origins" are now illustrated with Central-American examples.

The *Western Architect* for January gives some "Side-lights" upon the Convention; reproduces the Great Northern Station at Minneapolis, and Mr. Ittner's new Central High School in the same city. Other illustrations are of work of less importance — but of generally eccentric design.

The American Institute *Journal* for January epitomizes the Twenty-fourth Annual Convention, and — despite its assumed rôle as protagonist of competitions — contributes the disclosure that Germany is no more successful than Massachusetts in juggling with this professional "hot potato"! By omitting proper credit to architect and designer in its illustration titles, this issue voluntarily groups itself with the popular non-architectural journals — such as *Architecture and Building*, *American Homes and Gardens*, and others of their ilk!

The *Harvard University Architectural Quarterly* begins its second volume with September; and lectures by Charles A. Coolidge on "The History," and Herbert Putnam on "The Planning," of Libraries. Inserted plates show a



Garden Front, "Windham," Bryn Mawr, Pa.
Percy Ash, Architect

(From "The American Architect")



Stable & Garage, "Windham," Bryn Mawr, Pa.
Percy Ash, Architect

(From "The American Architect")



House of Everett D. Chadwick, Winchester, Mass.
Warren & Smith, Architects

(From "The American Architect")



House for C. S. Waldo, Jr., Brookline, Mass.
J. Lovell Little, Jr., Architect

thesis design, and three measured and rendered drawings by the Robinson Traveling Fellow.

Construction Details for December merits no architectural comment, while *Construction* for January is largely given to Edward & W. S. Maxwell's Art Gallery in Montreal — a carefully designed and well-executed building that, however, appears curiously deceptive in scale, as the exterior views entirely fail in suggesting anywhere near its real size. The same issue also illustrates Crawley Court in Hampshire.

The October Quarterly *Town Planning Review* continues Mr. Adshead's "Utilitarian Furnishings of the City;" treats of the development of Antwerp and Berlin; the report of the First International Congress on Town Planning, by Patrick Abercrombie, and the Third International Road Congress, by S. D. Adshead — with various minor departments, reviews, and chronicles of the day.

The December English *Architectural Review* has an article, on Venetian "summer villas" along the River Brenta — concluded in the January issue. The London Club is the St. James, and Mr. Gotch contributes an article on "Broughton Castle." The instalments of "Painted Decoration" for both months deal with the Georgian period, and the plates illustrate all these subjects, including a sunken garden

at Balls Park, Hertford. The invaluable department on "Current Architecture" reappears in December, illustrating William A. Pite's new King's College Hospital, Lanchester & Rickards' Art Galleries in Bond Street, James Miller's New Institution of Civil Engineers, Gotch & Saunders' Alfred East Art Gallery at Kettering, and W. Campbell Jones' Hongkong and Shanghai

Bank in Gracechurch St., London. The January number contains the second article on "The Palais de Justice at Paris," and Nicholas Hawksmoor's Christ Church at Spitalfields, London, both with plate illustrations.

The Architects' and Builders' Journal on December 31 shows

English open-air schools, some store fronts, and small English cottages. On January 7 is published McKim, Mead & White's New York City Municipal Building, a Public Hall at Leicester, and the new Astoria Hotel in the Avenue des Champs-Élysées, Paris; January 14, Professor Reilly's Students' Union at Liverpool, a new building for the Société Générale, Paris; and the premiated design for the Bradford Town Planning and Housing Competition. January 21 contains more of Professor Reilly's Students' Union,—in a rather heavy and ornamental classical Greek treatment,—besides a lecture by A. E. Richardson dealing with English and American Colonial work; and, on January 28, appear M. Hébrard's International Central City, more views of Professor Reilly's Students' Union, and the charming thatched cottage at Byfleet, Surrey, by G. Blair Imrie.

The Builder for January 2 is the usual special New Year's number—including a descrip-

(From "The Builder," London)



Proposed Premises in Calcutta, India
H. S. Goodhart-Rendel, Architect



Administration Block, King's College Hospital, London
William A. Pite, Architect



Students' Union, Liverpool, England
Prof. C. H. Reilly, Architect

(From "The Builders' Journal," London)



An International World Center
Ernest M. Hébrard, Architect
(From "The Builder," London)



Suggestion for Completion of Somerset House to the Strand, London
Richardson & Gill, Architects
(From "The Builders' Journal," London)



Building for the Société Générale, Paris
J. Hermant, Architect
(From "The Architectural Review," London)

tion of Delhi, its architecture and ancient cities. The plates includes sketches in Delhi and New York; photographs of Holme Lacy, showing the new wing; a suggested completion of Somerset House, by Richardson & Gill; new additions to the University College at London; Mr. Conrade's resto-

ration of the Temple of Athené at Athens, and a county map of London. The section on "Civic Design" deals with an old London Guide-book of 1789. January 9 continues the "Bronze Door" article, and shows Messrs. Williams & Cox's proposed new Children's Homes at Barnet. On January 16 appear Mr. Bragdon's Rochester Station and Andrews, Jaques & Rantoul's new Ipswich Bank. The plates include a Rome

Scholarship design for a Technical University and Mr. Goodhart-Rendel's proposed new Premises in Clive Street, Calcutta (which we reprint); January 23, Mr. Louis de Soissons' designs in the Rome Scholarship Competition, and Mr. Edwin Cooper's Manchester Royal Exchange; and the number dated January 30 reproduces—from American magazines—several views of the Princeton Graduate College, the sketch drawings of a Russian country house by Mr. Baillie Scott, and the fourth article, with accompanying illustrations, on "Bronze Doors."

(From "The Builders' Journal," London)

THE ARCHITECTURAL
REVIEW + MASTERS IN
ART + VARIOUS BOOKS

PUBLISHERS' DEPARTMENT

BATES & GUILD COMPANY
144 CONGRESS STREET
BOSTON • MASSACHUSETTS

THIS issue is largely given to a publication of the more interesting schemes selected from the fifteen sets invited in competition for the Pittsburgh Court House-City Hall; which is again a problem somewhat similar in disposition to the sets of competition drawings we published last December. They require no further explanation for our readers than that we have attempted to select for publication within this number their most essential and important drawings; elevations and sections being placed upon the plates, and the more important plans being so related on the text pages as to provide a means of easy comparison.

Our added plates include a showing of what many will consider Mr. Lutyens' most distinctive and dignified dwelling, the Manor House of "Marsh Court." It is further individually interesting because it was the first indication of a tendency toward formalism that has constantly been developing through this designer's later work, to the unfortunate exclusion of the picturesque compositions by which he first became preëminent in his field. "Marsh Court," in the minds of many critical observers of Modern English domestic architecture, remains his best and most distinctive effort in that direction.

Through a mistake in binding, the plates of Mr. John T. Comes' St. Mary's Church at McKeesport, Pa., and MacLaren & Thomas' Christ Church at Canon City, Col., omitted from the February number, are here included, along with Mr. Henry Vaughan's Adelbert College Chapel in Cleveland, and Mr. Comes' Church of the Holy Family at Latrobe, Pa.

The leading article this month gives some idea of the historic background necessary to realize the possibilities of Glass Mosaic in modern architecture, particularly devotional architecture, in America, illustrating the very important modern works by Sir Edward Burne-Jones, Mr. George Breck, and Mr. and Mrs. Lamb, that have been executed in recent years in Italy and in America.

The April *Architectural Review* plates will contain a number of very unusual working drawings showing the two principal permanent buildings of an Exposition group in the Spanish Renaissance style now under construction at San Diego, Cal. This plate illustration will be accompanied by a short article, with several sketches, and photographs of minor details, already under way or partially completed, along with a plan of the Exposition group and grounds. We believe this will illustrate the first instance of an architec-

tural treatment of such a problem in one harmonious style, carried out under the direction of one controlling mind—and it can certainly be said that no one better fitted by study, experience, and inspiration to deal with this material than Mr. Bertram G. Goodhue could be found.

The added plates will include six views of English domestic architecture, by Mr. Lutyens, Edgar Wood, Smith & Brewer, and R.S. Lorimer; and two plates of English ecclesiastical architecture, by Nicholson & Corlette and G. Gilbert Scott.

Either the April or the May issue will also contain the second of the "Philadelphia Stone-work" articles, quite as comprehensively illustrated as the first instalment, published last December—but this time with contemporaneous work, principally by American designers; while the text will give some definite instructions as to the means and work-

manship by which certain effects shown in the illustrations have been obtained. The May added plates will continue to emphasize the American series, for which we have nearly enough material to fill these available plates for the remainder of this year.

Book Notes

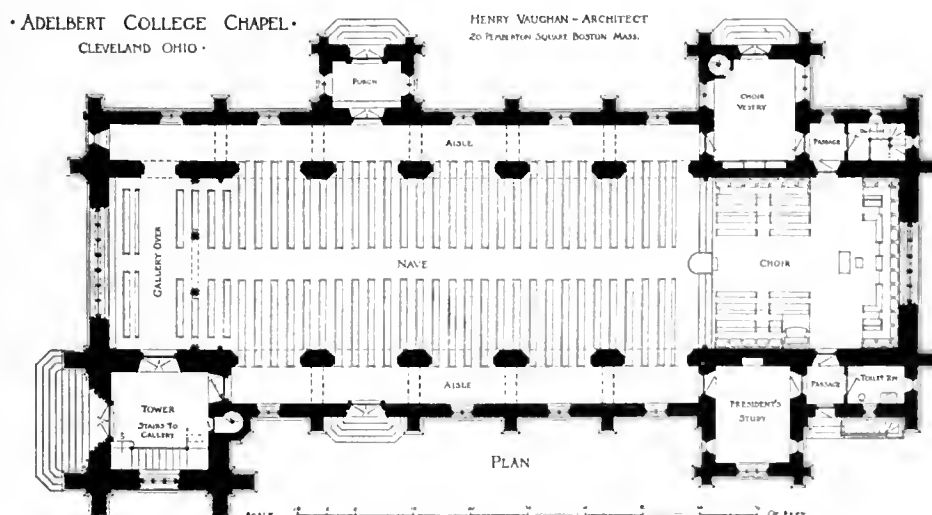
FRANK LLOYD WRIGHT, AUSGEFÜHRTE BAUTEN, with appreciation by C. R. Ashbee. 8½" x 12". 141 pages. 164 illustrations. 46 plans. Price, \$3.50. Ernst Wasmuth, Berlin. 1911. This portfolio contains a fairly complete and interesting showing of the principal work done by this Chicago designer, in Chicago and its vicinity. Besides a large number of residences,—many of which have been previously published but now here drawn together for the first time,—the book also includes a showing of the later Unity Temple at Oak Park, the Dana House at Springfield, the comparatively unfamiliar Coonley House, at Riverside, Ill., the Gerts Bungalow, Michigan, and a number of views, both exterior and interior, of the Larkin Soap Factory at Buffalo. Aside from the individual eccentricities of Mr. Wright's style,—a number of which may be considered as pure mannerisms, frequently of undesirable structural relation to his design,—the volume contains material of undoubted suggestive value to an architectural designer. It further possesses a certain relation to the growth, or the development, of an indigenous style of architecture that should not be ignored; while it aptly illustrates the fundamentals of what we have come generally to term the "Chicago school" of architecture!

IMPROVEMENTS OF TOWNS AND CITIES, by Charles Mulford Robinson. 4½" x 7". 313 pages. Price, \$1.25, net. G. P. Putnam's Sons, New York. This fourth revised edition indicates that the interest in this subject and the demand for such a treatise have been maintained during the twelve years since its first publication. While much yet remains to

be done in America before we can equal here the results that are a matter of daily accomplishment and custom abroad in the art of City Planning, yet a book of this sort remains continually useful in helping to prepare the public for and break the way to the newer and more advanced points of view, in regard to the broad practical and aesthetic bases of community improvement, upon which the art of City Planning and development is essentially established. This treatise should continue to help interest the ordinary citizen in the possibilities, and economies, of such improvements.



Study for Figure of "Love," from Lakewood Chapel, Minneapolis, Minn., by Ella Condie Lamb





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The Architectural Review

Volume III (Old Series, Vol. XX)

March, 1914

Number 3

Glass Mosaic for Wall Decoration

By Ida J. Burgess

IT is only in quite recent days that glass mosaic has been revived for use in wall-decoration. This is partly due to the supposed great expense necessary for the execution of the designs. The value and beauty of such decoration are now beginning also to be recognized for their permanency as well.

About fifty years ago a method was devised for applying the glass cubes, or tesserae, directly to the full-sized cartoon as designed by the artist. By means of paste these small cubes of glass of different colors were placed directly on the pattern of the cartoon, and when the whole was finished it was taken to the building, where, the wall-surface first having been covered with a coating of cement, the pattern, with the face side against the wet cement, was applied like a plaster and the cubes pressed into the cement. When

this was dry it was a simple matter to remove the paper pattern from the wall, where the mosaic was left completed, ready to endure as many centuries as have those notable mosaics on the walls of buildings in Venice, Ravenna, Palermo, and Rome.

However, the apparent simplicity of execution does not solve

all the difficulties of the work for the artist and his assistants, as the late Sir Edward Burne-Jones found out when he labored so hard to execute the glass-mosaic decoration for the walls of the American Church in Rome.

The size of the decoration itself often necessitates a totally different manner of execution than that to which the artist is accustomed. The distance at which the work is to be seen is, again, a matter of much study and experiment; not to speak of the knowledge, gained only by practice, by which



Portion of Glass-Mosaic Wall Decoration, Church of San Vitale, Ravenna
By Byzantine Artists, 7th Century



The Virgins, Church of San Apollinare Nuova, Ravenna. Glass Mosaic
Byzantine Artists, 6th Century, for Emperor Theodoric



Detail, Head of the Empress Theodora in the Church of San Vitale, Ravenna
Work of Byzantine Artists of the 6th Century



Portion of Glass-Mosaic Wall Decoration, Palatine Chapel, at Palermo
In Byzantine Manner by Italian Artists of the 12th Century



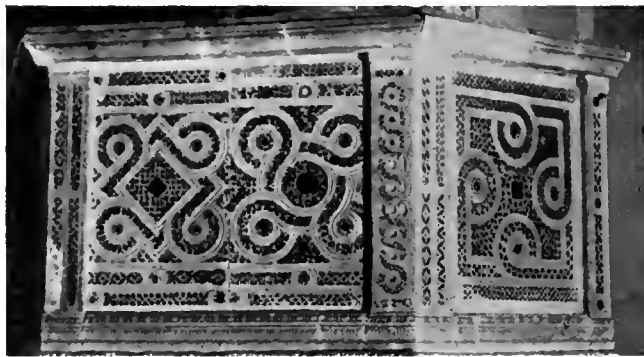
Glass-Mosaic Decoration over Apse of the Church of S. Clemente, Rome

Panel, "Love," Lakewood Chapel, Minneapolis
Executed by J. & R. Lamb

the Byzantine artists of Ravenna succeeded so marvelously in creating masterpieces of decorative color. It is simple enough to copy in glass mosaic any colored picture, as the work of the mosaicists of the Vatican work-shops on the walls of St. Peter's, Rome, clearly demonstrates. But then we see, not a decoration in glass mosaic, but a lurid copy, at exaggerated size, of an oil-painting — nothing more. Such work succeeds only in prejudicing persons of refined taste against glass-mosaic decoration!

Happily, there are those who recognize the handicap of modern realistic treatment in the art of glass-mosaic wall-decoration, and have eliminated the non-essentials, and by close study of the technique of the early mosaicists arrived at a successful revival of this enduring and really monumental art.

Practically considered, there is no decoration for public buildings that can compare with it in durability. Once those glass cubes, holding all colors as well as various tones of gold and silver in their luminous depths, are securely attached to the wall-surface, nothing but the destruction of the wall itself can mar their beauty. No change will be made in them by smoke or grime; a little cleansing with a soft sponge in soap and water removes all accumulations of soot or dirt, and the decoration shines again in its pristine beauty.



Detail of Ambone (Pulpit) in Church of San Domenico, Orvieto



Mosaic Wall Decoration, One of the Chapels in San Vitale, Ravenna

Comparing the mosaic on the walls of either San Apollinare Nuovo or San Vitale, in Ravenna, with the modern work on the exterior walls of St. Mark's in Venice, one readily understands how completely different in point of workmanship the ancient methods were from those of to-day. Puvis de Chavannes was the first to recognize this difference, and his mural painting on the walls of the Pantheon in Paris returned to the earlier methods, as being the only style suited to the expression of noble ideals.

In the ancient process, it is said the artist drew his full-sized figure compositions directly on the freshly plastered wall, in rather pale colors, followed immediately by an assistant who pressed into the wet plaster the cubes of various colored glass, thus completing the work. It sounds very easy, and the early established conventions as to the colors for the different parts of the flesh, hair, eyes, drapery, or background, were given by the Greek teachers to their pupils and generally adopted by monastery workers in Italy.

The Byzantine artists, directly inheriting from the Greeks, furnished early workers in mosaic glass in Italy the patterns, the color-arrangements, and the glass for their work. Whether or not this "Master's rule" was based on a scientific color-scheme, as modern artists now

claim their use of colors to be, the ancients followed the same principles we in our time have adopted, and we cannot do better than did they.

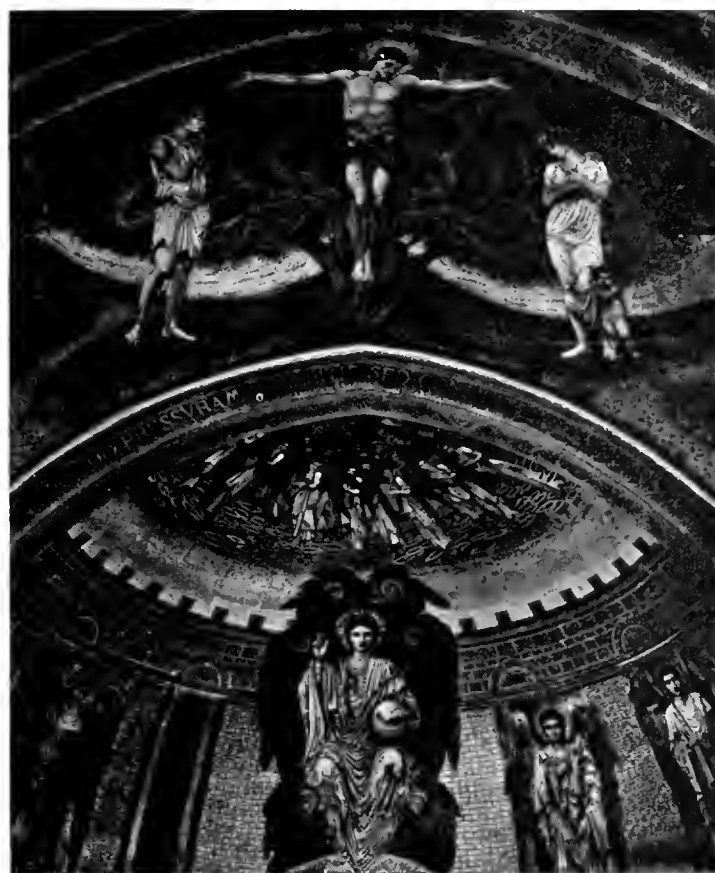
The chief objects represented in the mosaics of Ravenna are in delicate hues. The figures, clothed in various tinted garments, are relieved against gold backgrounds in which these various tones are repeated in small bits here and there. Likewise, a touch of gold is found frequently in the garments, and all the figures have a margin of purple, brown, or lavender against the gold background, softening the outlines which otherwise would be unpleasant to the eye. From the distance below, these gleaming bits of glass blend and harmonize perfectly. This cannot be said of modern Italian mosaic work, because in seeking to be realistic, the mosaicist has forgotten the rules of harmonious color-combinations consistently practised in earlier times.

The mosaics of Burne-Jones in the American Church at Rome were, as Miss Sarah D. Lowrie has said, "a tremendous task for a man to undertake who . . . could not go to Rome and see the church for which they were designed, nor yet to Venice, where they were made."

The cartoon which he dwelt upon with most love and labor was the mystical design on the arch over the apse, which he called "The Tree of Forgiveness." It was planned by Dr. Nevin (the first rector of the church) and Burne-Jones to cover the entire walls of the church with mosaics. Those of the great arch and the apse from the designs of Burne-Jones have been completed, some from cartoons made by his pupils after his death. Both William Morris and Alma-Tadema worked on these mosaics. Those most recently completed are on the west wall of the interior, and were designed by George W. Breck, an American artist of distinction, for several years director of the American Academy in Rome. Mr. Breck already had the experience of mosaics placed on the façade in 1909, when he un-



The Nativity, West Wall of St. Paul's American Church, Rome
Designed by George W. Breck. Executed by Antonio Castaman, of Murano



The Tree of Life and Christ Enthroned, St. Paul's American Church, Rome
Designed by Sir Edward Burne-Jones. Executed by the Venezia Murano Co., of Venice



Portion of the Dome, Lakewood Chapel, Minneapolis, Minn.
Designed by Charles R. Lamb. Executed by J. & R. Lamb

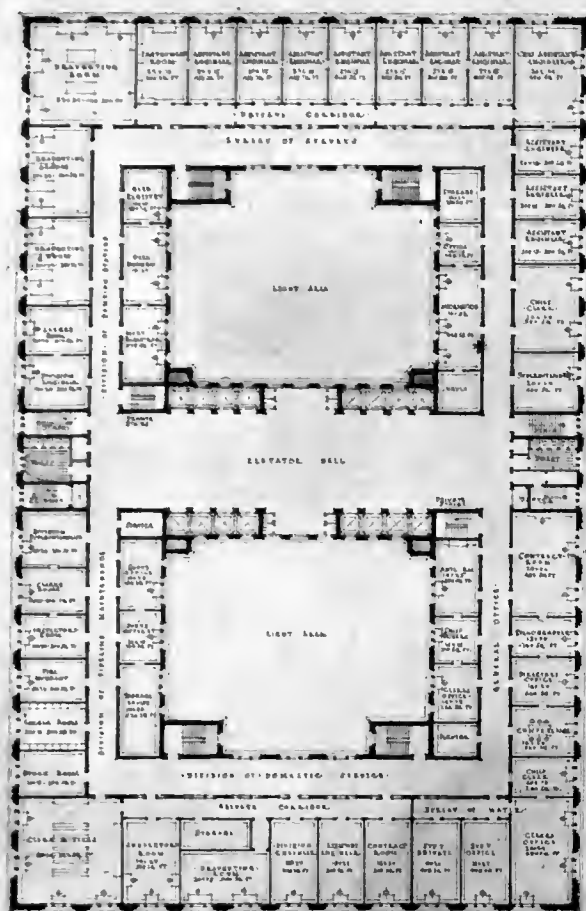
dertook this last work, executed from funds provided by William H. Harriman and J. Pierpont Morgan.

The wall above this space, over the rose window, is filled with mosaics representing the Creation, with the cities of Bethlehem and Jerusalem at either side of the window just above the wall-space showing the Nativity below. Quoting from Mr. Lowrie's descrip-

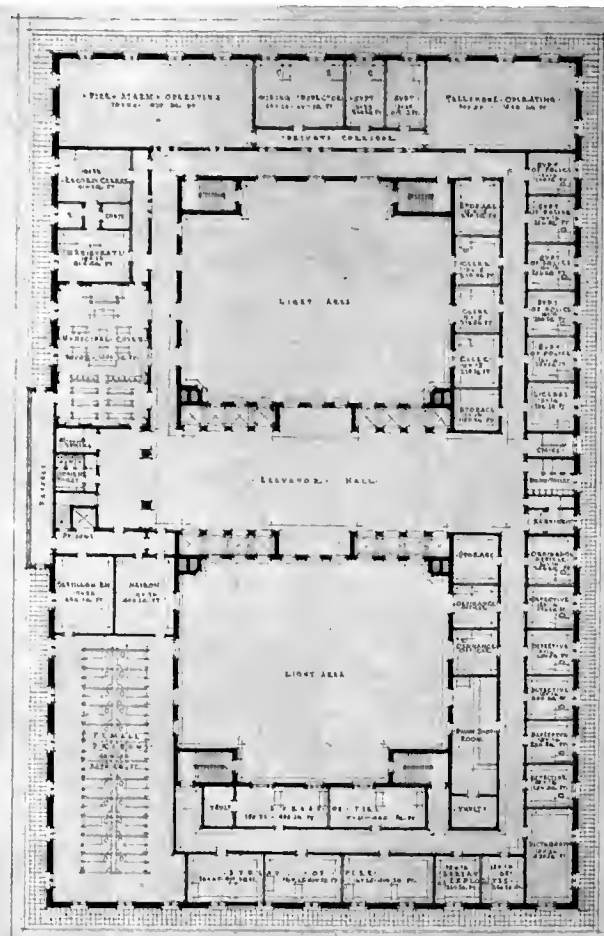
tion of the mosaics on the church façade, he said: "In compensation for all the restrictions imposed by the mosaic tesserae, we have unique possibilities of splendor in the lustrous reflections of glass and gold. In these possibilities lies the peculiar excellence of the mosaic art. All of the mosaics of the best periods are splendid, many of them gorgeous. Not to aim at such effects, or to fail to attain them, is to come short of making a good mosaic. In this, manifestly, Mr. Breck has not failed."

The decoration of Lakewood Chapel, at Minneapolis, Minn., is probably the first complete decorative scheme in dark green marble and mosaic glass, following the type of San Marco, Venice, executed in this country. This work, resulting from the combined efforts of two artists, — Mr. Charles R. Lamb and his wife, — reflects the results of the study of early mosaic decoration on the minds of two American designers.

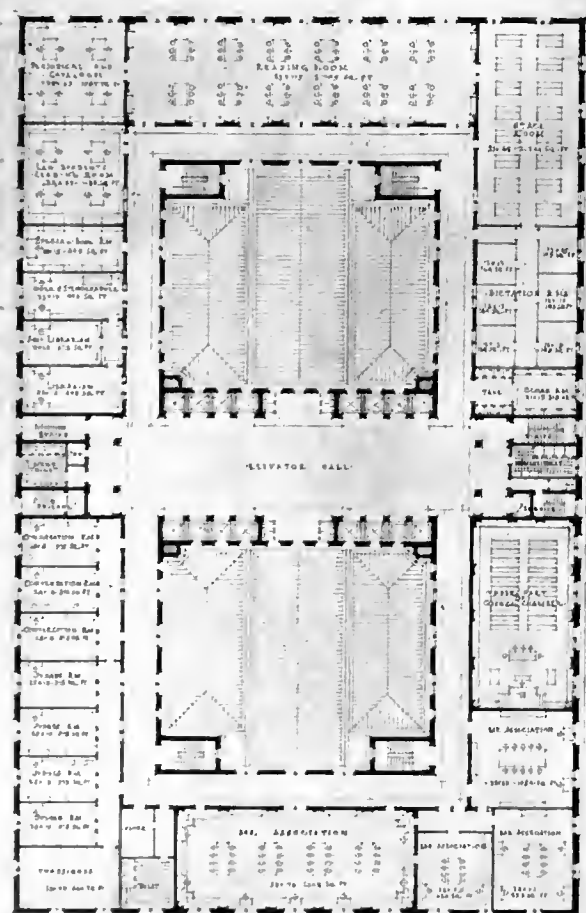
The great blue dome, with its circle of winged angels, is by Mr. Charles R. Lamb, wherein he has made visible a scheme of orientation by means of the color-arrangement, — the deep blue marking north and south gradually changing in the angels' wings through all shades of delicate rose, lavender, and pale green, before reaching the brilliant yellow marking the east and west. The four pendentive medallions of seated women, typifying various virtues, are by Mrs. Ella Condie Lamb. The richness of the execution is enhanced by the introduction of mother-of-pearl shell, silver and gold glass of various colors, to soften and unify the mosaic.



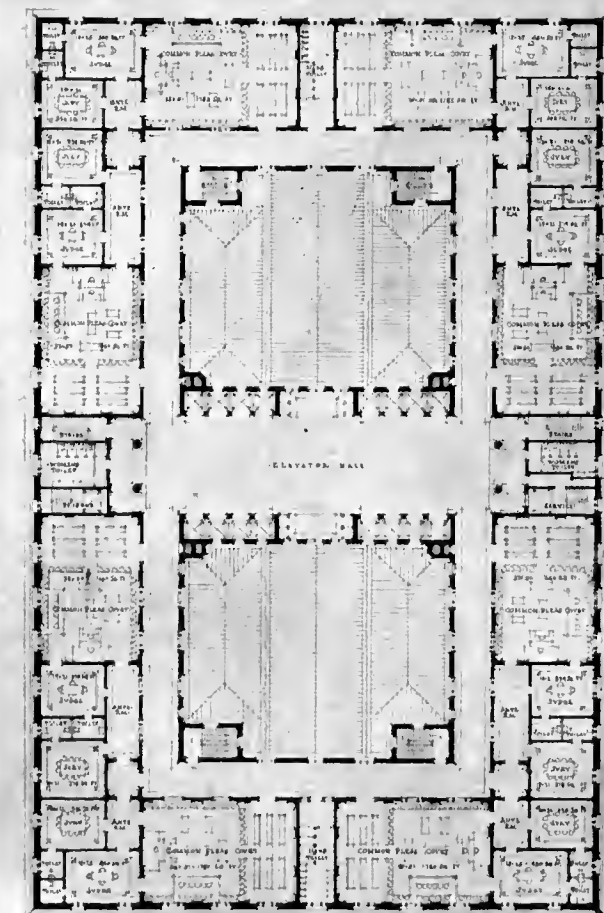
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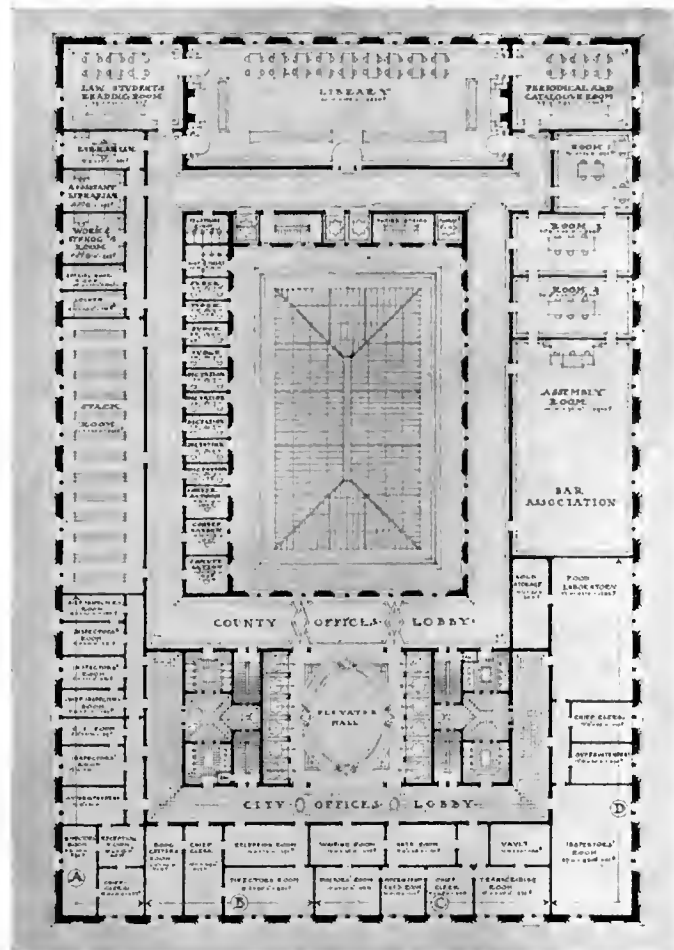
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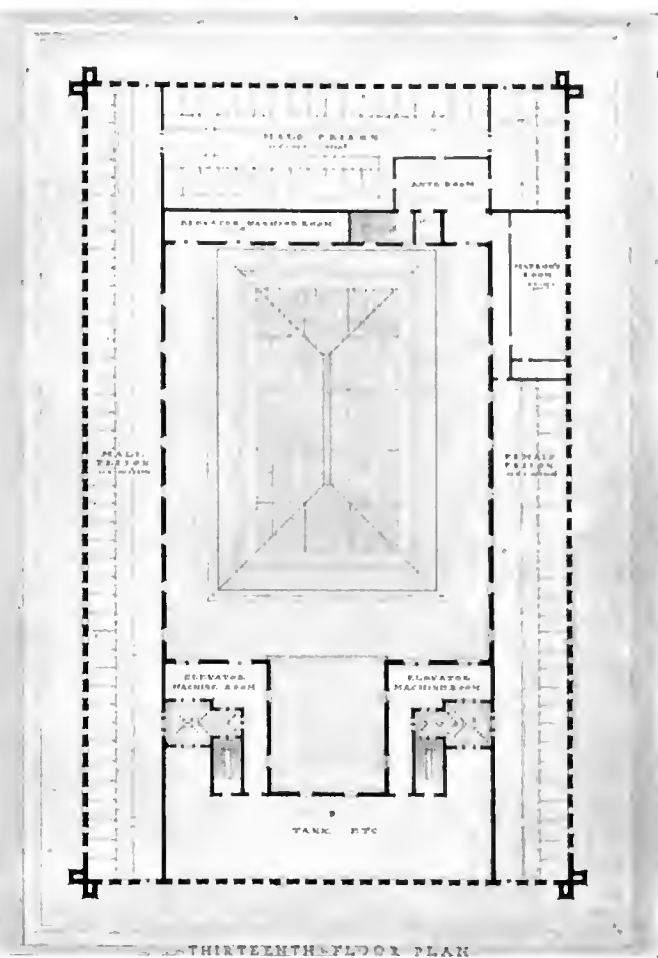
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COMPETITION FOR THE PITTSBURGH COURT HOUSE-CITY HALL

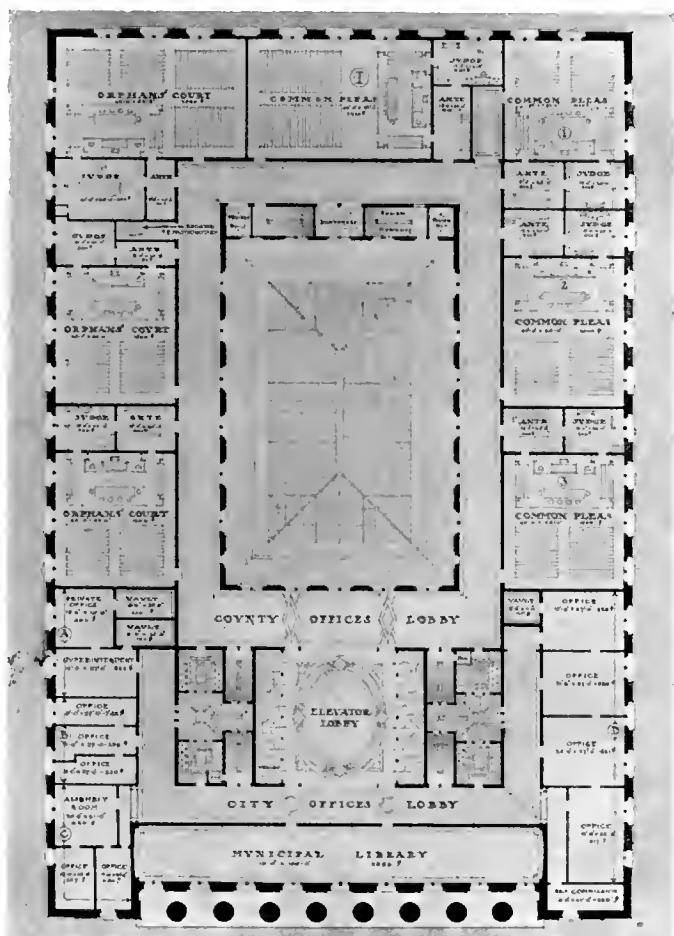
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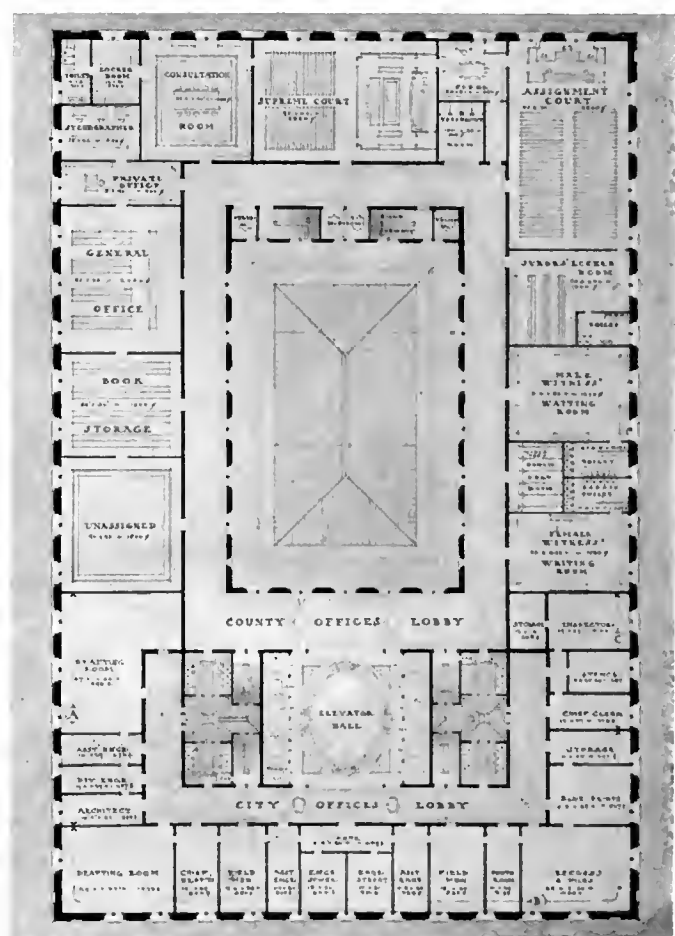
ELEVENTH FLOOR



THIRTEENTH FLOOR



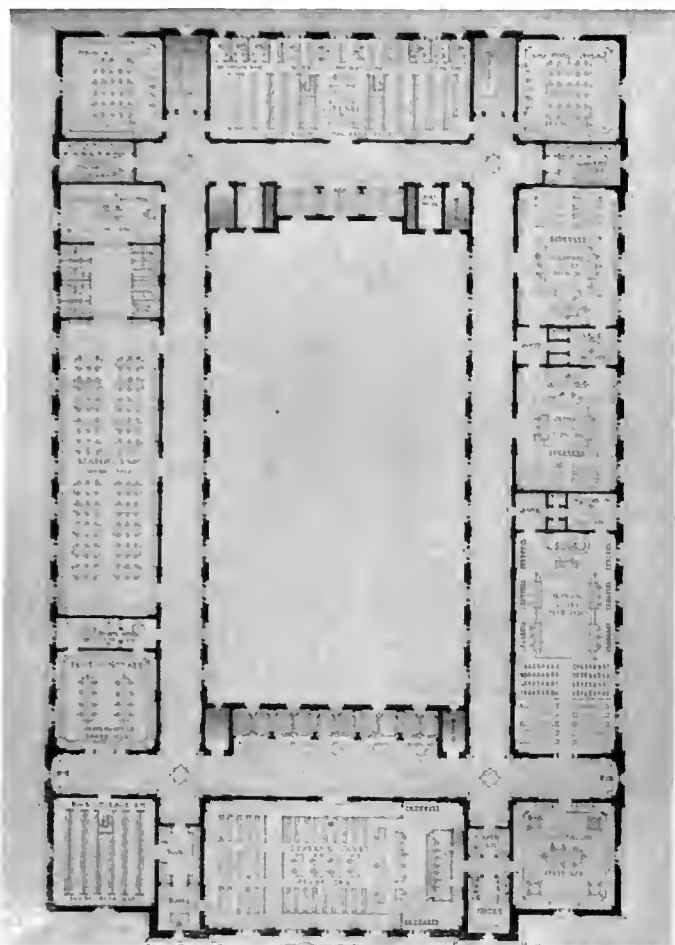
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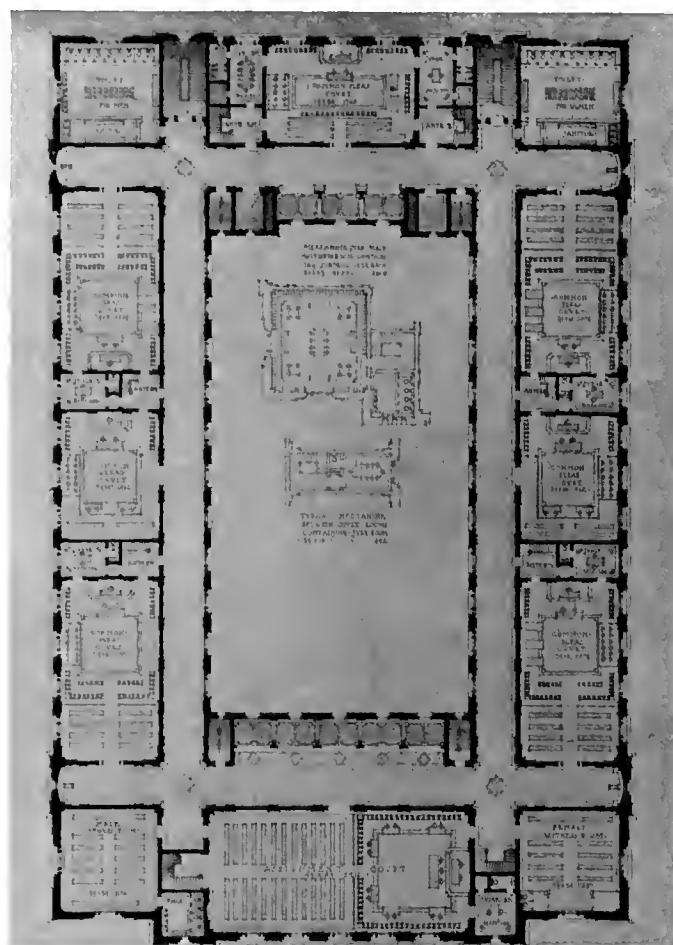
NINTH FLOOR

COMPETITION FOR THE PITTSBURGH COURT HOUSE-CITY HALL

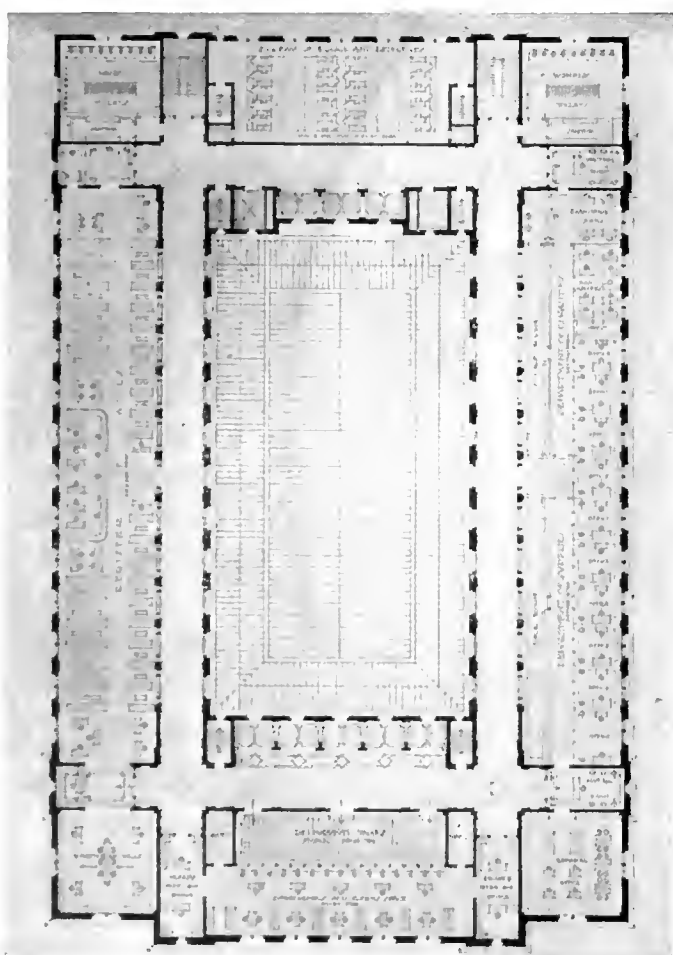
RUTAN & RUSSELL, ARCHITECTS



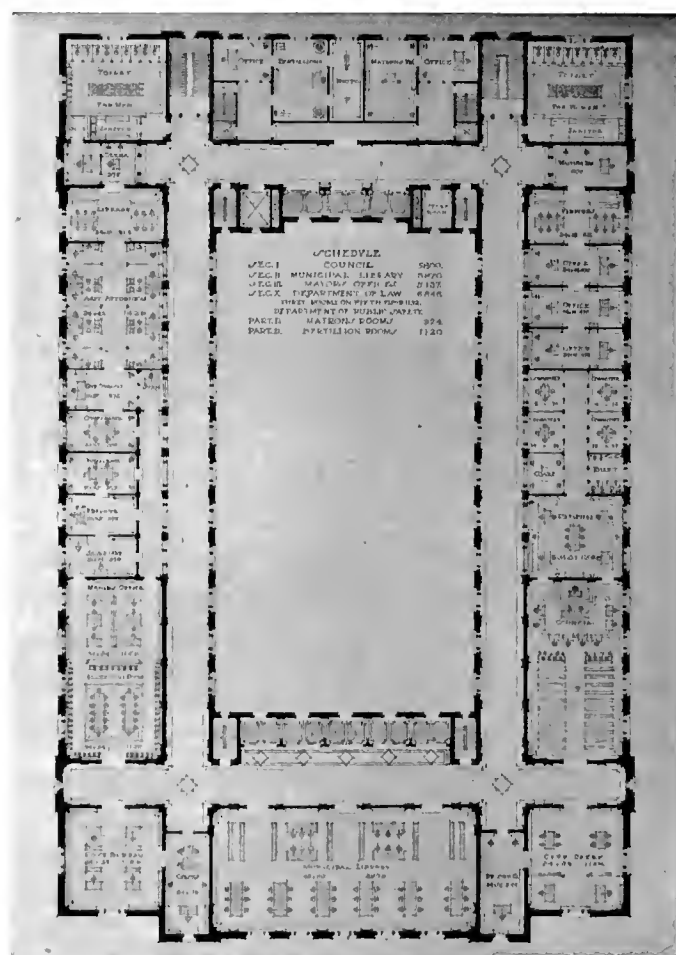
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TENTH FLOOR



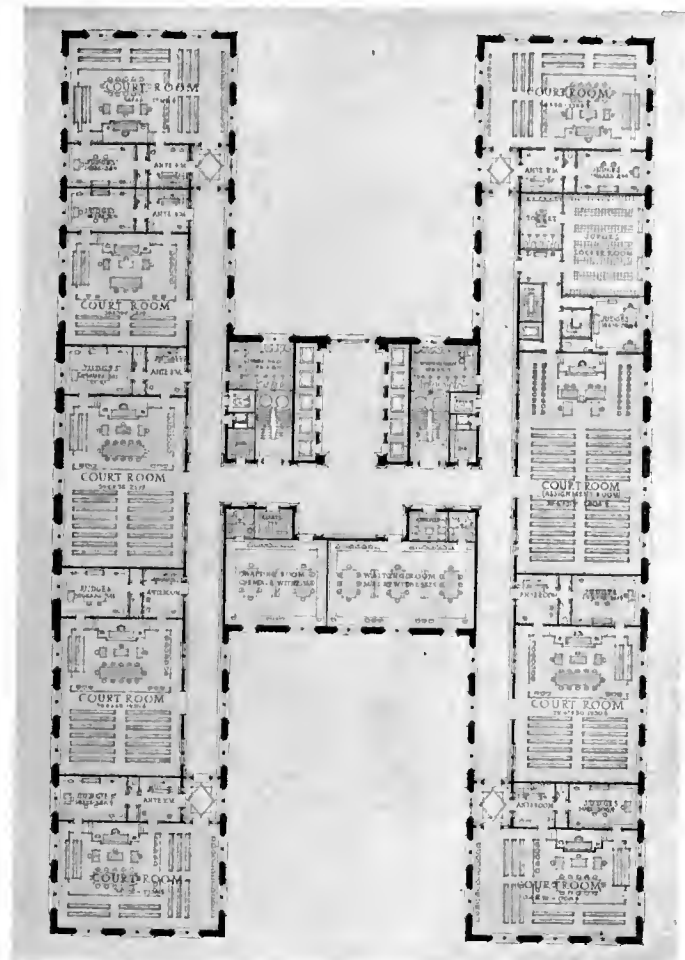
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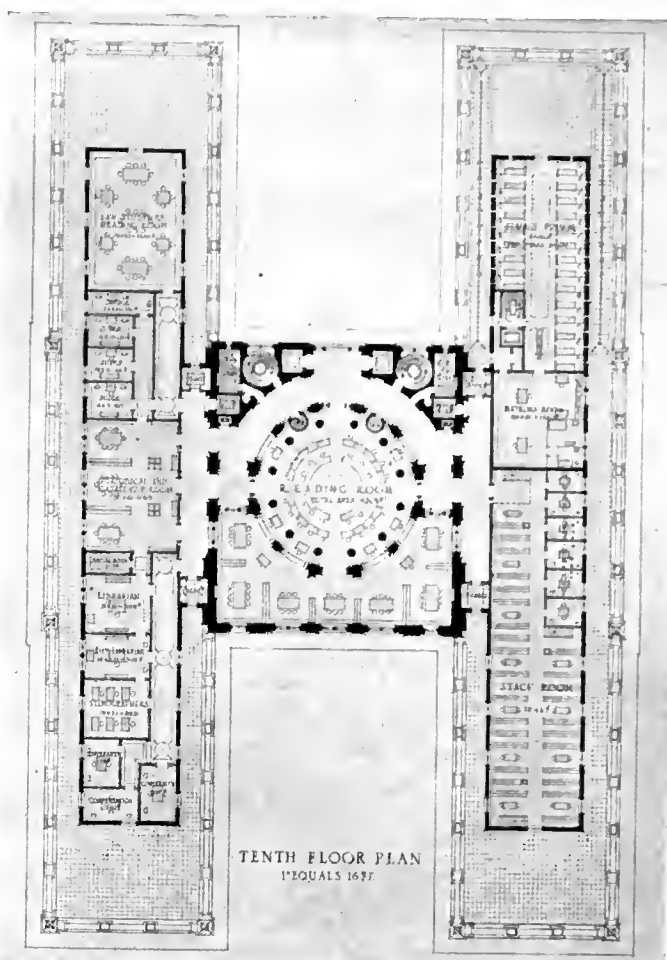
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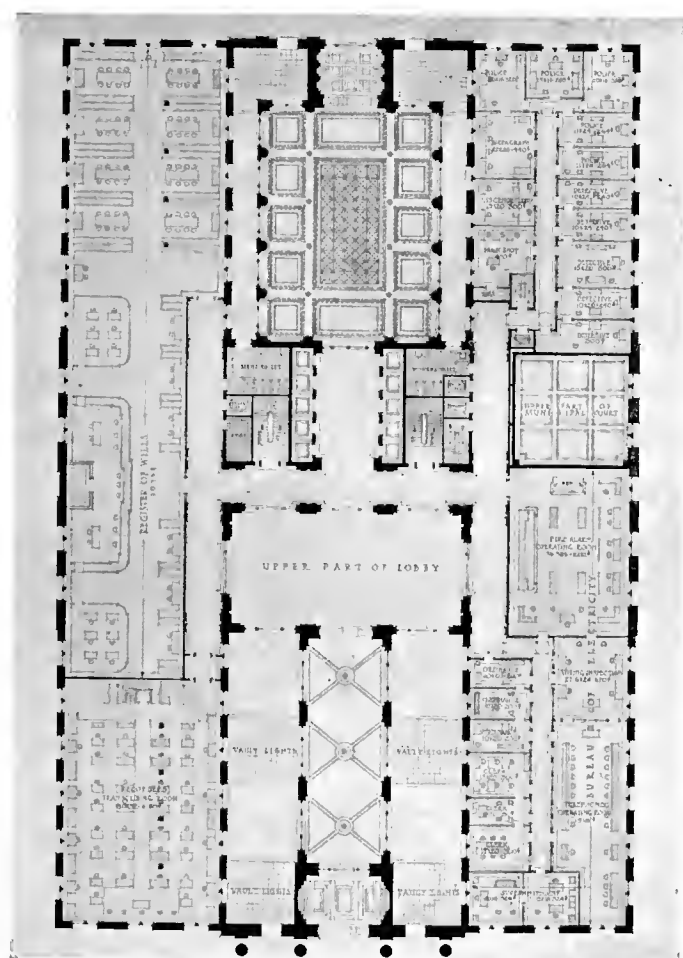
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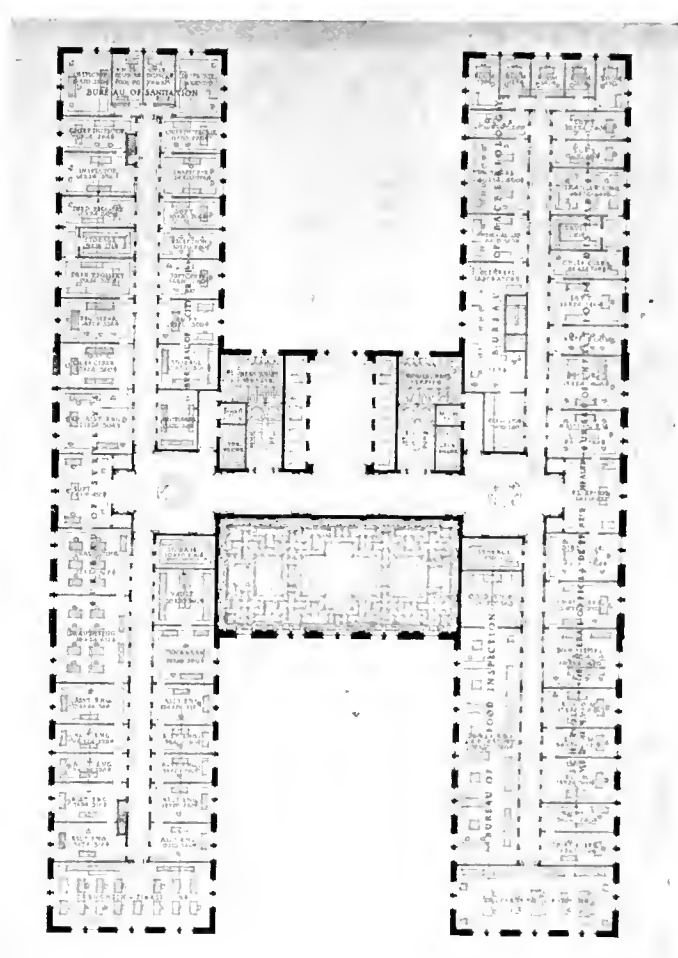
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COMPETITION FOR THE PITTSBURGH COURT HOUSE-CITY HALL

JANSSEN & ABBOTT, ARCHITECTS

The Architectural Review

New Series, Volume III, Number 3

Old Series, Volume XX, Number 2

MARCH, 1914



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PLATES

PLATES XXI., XXII.—COMPETITION FOR THE PITTSBURGH COURT HOUSE-CITY HALL, PITTSBURGH, PA. (ELEVATIONS AND PLAN)—MACCLURE & SPAHR, ARCHITECTS.

PLATES XXIII., XXIV.—COMPETITION FOR THE PITTSBURGH COURT HOUSE-CITY HALL, PITTSBURGH, PA. (ELEVATIONS, SECTION, AND PLAN)—RUTAN & RUSSELL, ARCHITECTS.

PLATE XXV.—COMPETITION FOR THE PITTSBURGH COURT HOUSE-CITY HALL, PITTSBURGH, PA. (ELEVATION AND SECTION)—KIEHNEL & ELLIOTT, ARCHITECTS.

PLATE XXVI.—COMPETITION FOR THE PITTSBURGH COURT HOUSE-CITY HALL, PITTSBURGH, PA. (ELEVATION AND SECTION)—JANSSEN & ABBOTT, ARCHITECTS.

PLATE XXVII.—COMPETITION FOR THE PITTSBURGH COURT HOUSE-CITY HALL, PITTSBURGH, PA. (ELEVATION AND SECTION)—ROBERT MAURICE TRIMBLE, ARCHITECT.

PLATE XXVIII.—COMPETITION FOR THE PITTSBURGH COURT HOUSE-CITY HALL, PITTSBURGH, PA. (PRINCIPAL PLANS)—ROBERT MAURICE TRIMBLE; KIEHNEL & ELLIOTT; JANSSEN & ABBOTT, ARCHITECTS.

UPON this page we recently rendered appreciative recognition of the frank, manly, and professional stand the Committee on Competitions of the American Institute of Architects had obviously endeavored to incorporate into their published competition code. This compliment now appears both premature and undeserved, as, at nearly exactly that same time, the code was being revised; and as it now stands accepted by the convention in New Orleans it is shorn of much of its dignity, independence, and strength. The grave importance of these eliminations can hardly be better shown than by giving space to their literal recapitulation here. Without them the intent and meaning of the code are diametrically opposite to what they were before; the present edition containing no slightest hint that the Institute has “*put itself squarely on record as opposed to competitions*”—that “*record*,” whatever it was, appearing to have been washed away “*cleaner than snow*” in the flowing “*Father of Waters*” at New Orleans! From the Fifth Edition (issued January First, 1914) of the Competition Code have vanished *all* the following statements—last found in the “*fourth edition*” of the previous year. Their elimination is the more pointed as *absolutely nothing else* in the code has been changed!

For several previous years, at least, the Institute has professed to believe that “*Architects were led by many reasons to enter such competitions. Some needed work and were compelled to take any chance to obtain it. Many enjoyed the contest; some, the exercise of solving an interesting problem. Architects have, however, learned that the outcome of a competition is largely a matter of chance, and that the method rarely produces results in the building better than those obtained by direct selection*” (old pages 3 and 4). The committee also explained that “*For certain work, especially that of a public nature, there may, however, be reasons for holding a competition*” (old page 4); while, further, it was frankly printed, as the opinion of the committee and of their associates, that “*The In-*

stitute, realizing that such affairs” (i.e., competitions!) “*were of no value to the owner and were injurious to the profession, stated the principles which should govern the conduct of competitions. This statement, corrected and improved from time to time, was an excellent academic treatise to which all readily subscribed, but to which no one paid any attention if, for any reason, he wished to enter a competition. In fact, although all believed in it, few were willing to put it into practice unsupported. To make the principles operative it was necessary to make them obligatory*” (old page 6).

“*The Institute, therefore, as a first step, put itself squarely on record as opposed to competitions on the ground that they were uncertain in their results and wasteful of time and money; but since they are sometimes necessary*”—(page 7) (The “*necessity*,” be it observed, being forced—in the Institute’s experience—not by the clamorous public representing the owner, but by the architect, who (according to the Institute’s committee!) loudly demandeth to be fed on the thin nourishment of a competition diet!)

It has in the past, at least, been the Institute’s theoretical opinion that “*A Competition, when properly conducted, is a means for the selection of an architect. As an incident, a good preliminary scheme may sometimes be obtained, but the Institute is of the opinion that competitions are in the main of no advantage to the owner. It therefore recommends that, except in cases in which competition is unavoidable*” (because of the clamor of its own membership, forsooth!) “*an architect be employed by direct selection upon the sole basis of his fitness for the work*” (this from page 11). The Institute used formerly also to advise the owner, from its experience, that “*Competitions are at best a slow and expensive method of choosing an architect; and it is unwise to attempt to save either time or money by not having an expert adviser*” (page 12). “*This form of competition*” (i.e., “*wide-open*”) “*is very cumbersome, and should be adopted only when the law requires that the competition shall be open to all who choose to take part in it*” (page 14).

There has, finally and also, been stricken from the publication the entire last article, printed in the preceding edition on page 34, under the heading of “*Definition and Exceptions*,” as follows:

“*A Competition exists when two or more architects prepare sketches at the same time for the same project.*”

“*This circular does not apply to competitions for work to be erected elsewhere than in the United States, its territories and possessions.*”

“*If in a limited competition all competitors who are members of the Institute sign a statement that the program is in accord with the ‘Essential Conditions’ of Article 18 of this circular, and an acceptance of all responsibility, and send, before entering the competition, such statement and acceptance, together with a copy of the program, to the Standing Committee on Competitions and to the proper sub-committee, no other action is required.*”

“*No architect who is employed to make sketches at the rate named in Article 9 of the schedule of charges shall be held as having taken part in a competition.*”

CAN any member of the Institute read the foregoing italicized phrases, now vanished from the fifth edition of its Competition Code, without wondering what deleterious influence has, in recent years, been so gradually changing the timber of themselves and their associates that they no longer dare conform to these once proclaimed standards? If they have been approved by Institute members in the past, why should they have thus suddenly appeared to the mere minority present at New Orleans as no longer necessary or desirable? One or two of these statements appear innocent and naïve enough. They were obviously intended, at some time, to explain the custom of competitions (a custom which, believe us, requires explanation—both within and without the profession); to a certain further extent they appear to have deprecated that custom and, notably enough, even the Institute’s one bold and daring moment,—in committing itself as being “*squarely opposed to competitions*,”—has now been erased from the record apparently as too drastic an act for our feeble and effete generation, whose most daring ambitions seem unable to project themselves above this emasculated “*fifth edition*” of to-day.

(From "The American Architect")



The Biltmore Hotel, New York
Warren & Wetmore, Architects

Current Periodicals

A Review of the Recent American
And Foreign Architectural Publications

(From "The Western Architect")



Point Loma Golf Club, San Diego, Cal.
Walter S. Keller, Architect
(From "Construction Details")

(From "The American Architect")



The Biltmore Hotel, New York
Warren & Wetmore, Architects

LAST month the photographically bizarre and the editorially curious rather predominated in American architectural magazines. We have therefore — as rather a welcome relief from the more serious responsibilities of this department! — seized the opportunity to garner four examples to place at the head of this March page; carefully and cautiously interspersing a thin meander of text to separate them from those selections of mere architectural interest that follow. Two grotesque curiosities of architectural portraiture are the caricatures that top these columns. Other equally esteemed contemporaries have managed to steer between *this* Scylla and *that* Charybdis with saner pictorial representations than these; despite that the photographer's success in bettering, in the one case, the familiar high forging prow of the Flatiron Building and in visualizing, in the other, the omnivorous maw of that metropolis "seeking whom he may devour," mayhap merited this encouragement!

Further to display those animal characteristics with which the architectural — as well as the human — visage may be endowed was doubtless the reason for publishing this Western bungalow, whose double yawning caverns suggest its near relationship to some new — and more deadly — rural species of the genus *Arachnida*; and, finally, we reproduce a "publish in haste and repent at leisure" illustration in the Point Loma Golf Club; which succeeds in discrediting, permanently and forever, the illu- sively worded Tingley campaign advertising the physical beauties of that sequestered clime — or does it merely show that, even there, "only man is vile"!

Besides the Point Loma Golf Club — about as bare and crude a combination of unbeautiful ele-

ment, from the same city. Trost & Trost are represented by an absurd house caricature of idiosyncrasies of "the Chicago school"

and a Masonic Temple equally exaggerating a similar building in Brooklyn; while the Louisville Y. M. C. A. displays a further unintelligent use, in combination, of familiar elements. The most inspiring section is a newly inaugurated department of foreign review, containing four or five virile products of the Modern German school, including two city railway-stations at Hamburg, and the monument at Leipzig, that we reprint.

The American Architect for February 4 publishes "London Notes," illustrating a Manchester theater already shown in *THE ARCHITECTURAL REVIEW* last May and July. The plates continue republishing well-known theaters, including the Illinois at Chicago; with two newer, if equally commonplace, "Orpheum Theaters" at Los Angeles and San Francisco — with a natural resulting confusion between their plate titles! Warren & Wetmore's Biltmore Hotel in New York City (February 11) is hardly flattered by misshapen illustrations exhibiting exteriors of inconceivably ugly perspectival angularity; accompanied by interiors so poorly reproduced as to exhibit no definite architectural features — of any kind.

"Some Church Furniture," February 18, illustrates work from the New York Office of Cram, Goodhue & Ferguson — much of which,



Bungalow, Claremont, Cal.
Robert H. Orr, Architect

(From "The Brickbuilder")

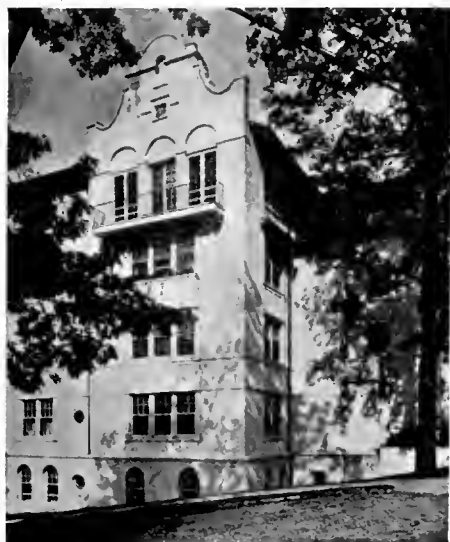


Garden front, House at Southampton, Long Island, N. Y.
F. Burrall Hoffman, Jr., Architect
(From "The Brickbuilder")



Union Station, Norfolk, Va.
Stem & Fellheimer, Architects

(From "The Architectural Record")



"Gramatan Court," Bronxville, N. Y.
Bates & How, Architects

(From "The Brickbuilder")



House at St. Louis, Mo.
Mauran, Russell & Crowell, Architects
(From "The National Architect")

(From "The Architectural Record")



"Gramatan Court," Bronxville, N. Y.
Bates & How, Architects



Conyer's Manor, Estate of E. C. Converse, Stanwich, Conn.
Donn Barber, Architect

seven or eight years old, is accompanied by studies, and photographs of chancels. The elevation of Hewitt & Bottomley's winning High School for Port Chester, N. Y., is so rendered as to disguise its real fenestration; inevitably to be disclosed in the actual building — which result is apparently anticipated by the designers as likely to be less satisfactory!

February 25 contains "American City Planning," Part X; an outmoded design of a Salt Lake City Office and Bank Building; an automobile accessory factory on the Charles River Bank at Cambridge; a nervously commonplace stone and half-timber house design at Montclair; and plates of Student Work.

The February *Brickbuilder*, in its "Architectural Renderers" series, deals with Alfred Morton Githens; publishes old ironwork from Baltimore; practical articles on "Lighting, Heating, and Ventilating;" and the more ornate portions of a New York City house. The "Distinctive American Architecture" series seems destined to treat of thoroughly familiar work — now duplicating the Biltmore Hotel, with plates better selected and reproduced than some of its contemporaries. The Norfolk, Va., Union Station is another experiment — hardly as successful as at Detroit — in combining station and office building. The Somerville (Mass.) Library is rather uninterestingly fenestrated, with an odd arrangement of entrances. The plates also contain a small fire-house in Washington; a Long Island house of extended design — suggesting French derivation on one side and Georgian Colonial precedent on the other — with dignified in-

an otherwise excellent New York City house.

February *Architecture* shows the Yale & Towne ornate Renaissance Exhibit room by LaFarge & Morris, and Bertram G. Goodhue's Chapel of the Intercession for Trinity Parish, New York City, interiorly embellished by a decorated timber roof. The Biltmore Hotel is yet again — and pleasingly — presented; a result toward which editor, photographer, plate-maker, and printer have all collaborated, including an attractive and modest grill-room. We attempt to reprint, from very inadequate and poor reproductions, the accepted Pittsburgh Municipal Building design, for comparison with those others we publish this month.

The February *Architectural Record* tardily re-duplicates St. Thomas' Church illustration (it becomes more and more mysterious how these photographs — particularly of the interior — were taken without showing it crowded with busy photographers! — partially explained in this case as these views appear to have been taken after nightfall!) Another article contains more "Gothic" detail — principally gargoyles from the Woolworth Building; "Gramatan Court," a rather novel apartment of terracotta, is shown "before and after" completion; and a "German Housing Development," the new Garden City at Hellerau.

(From "Architecture")

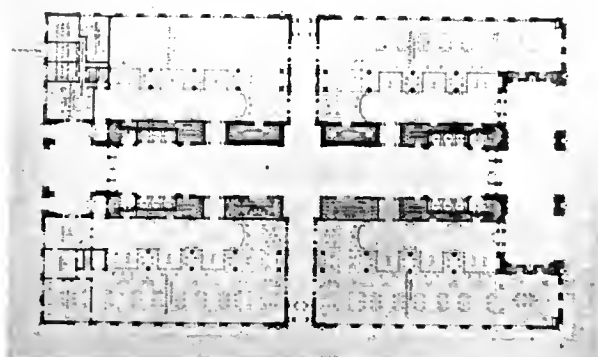


Grant Street Elevation

(From "Architecture")



Exterior, Chapel of the Intercession, Trinity Parish, New York
Bertram G. Goodhue; Cram, Goodhue & Ferguson, Architects



First Floor Plan, Accepted Design, Municipal Building
Pittsburgh, Pa.
Palmer, Hornbostel & Jones and E. B. Lee, Architects

(From "Architecture")



Chancel, Chapel of the Intercession, Trinity Parish, New York
Bertram G. Goodhue; Cram, Goodhue & Ferguson, Architects

(From "The Builder," London)



Rebuilding, Duchy of Cornwall Estate, Kennington
Adshead & Ramsey, Architects

is described and illustrated. An article on "Stained Glass Window-making" is accompanied by illustrations perpetuating the unworthy precedent and sentimentality of the "Tiffany school."

February *Construction Details* publishes a "market" at Madison; a store building in Detroit; and — the most interesting part of the issue — the Mission of San Juan Capistrano, California, with a conjectural restoration plan.

The Journal of the American Institute gives another article on "Architectural Draughtsmen," dealing with Charles Meryon's etchings. Other reprints are Mr. George McAneny's "Regulation of Building Heights," and a Garden City paper read at the Housing Conference.

The National Architect for January publishes the group of boldly nervous *Beaux-Arts* stone-and-shingle buildings on the estate of E. C. Converse at Stanwich, Conn., by Donn Barber.

Construction for February is principally concerned with Burke, Horwood & White's Central Y. M. C. A. at Toronto; followed by a garden article, including many illustrations reprinted — without credit — from American architectural magazines.

The February *Architectural Review* (English) deals with Frank Brangwyn's etchings; the second of Alfred Gotch's articles on "Broughton Castle;" a review of the "Paris Museum and Salon;" along with "Some Old-Time Lighting Accessories," including several historic chandeliers. The plates also include Professor Reilly's Gilmour Hall, in the Students' Union at Liverpool; and a house in Holland Park, by W. E. Marshall, contains old woodwork in several rooms.

The February *Town Planning Review* prints the twelfth instalment of Mr. Ads-

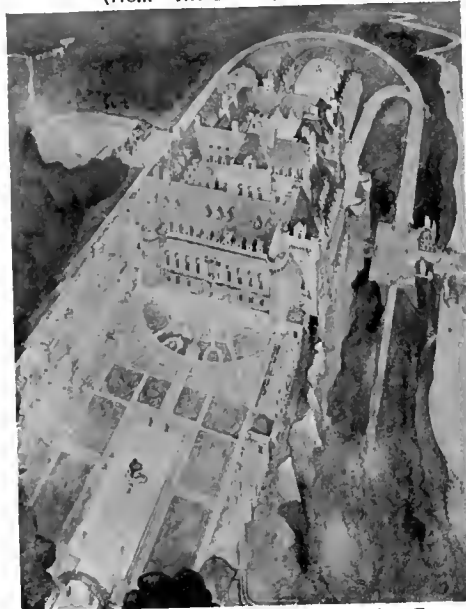
(From "The Builder," London)



Duchy of Cornwall Estate, Kennington
Adshead & Ramsey, Architects
(From "The Western Architect")



Monument, Leipzig, Germany
Bruno Schmitz, Architect
(From "The Builder," London)



Soane Medallion, A Royal Palace in the Country
First Prize, Cyril A. Farey
(From "The Builders' Journal," London)

(From "The Architectural Review")



Gilmour Hall, Students' Union, Liverpool
Prof. C. H. Reilly, Architect

head's "Decoration and Furnishing the City," dealing with Lamp Standards; the second of Mr. Abercrombie's articles on Berlin; and other contributions on "The Development of Antwerp," "Greater London," "Garden City Movements," "Country Housing and Town Planning Acts," "Book Reviews," and "Chronicle of Passing Events," including various designs for the Bradford Planning and Housing Competitions.

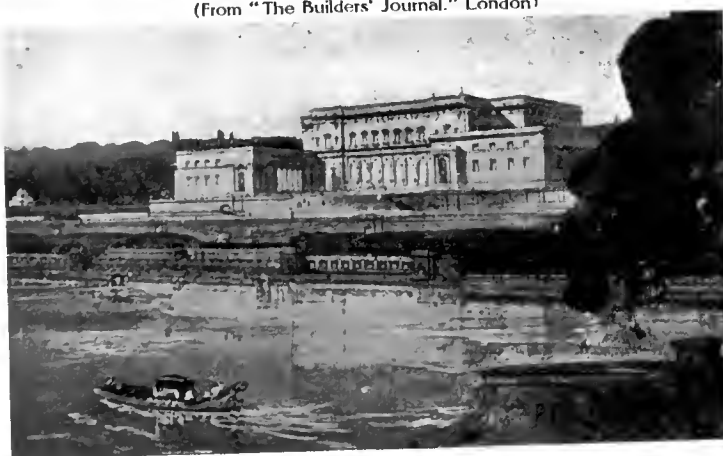
The Architects' and Builders' Journal publishes, February 4, St. Mary-le-Strand, and other of M. Hébrard's illustrations of his International World Center, including the Tower of Progress, and the Soane Medallion drawings of a "Royal Country Palace"; February 11, it reproduces York & Sawyer's Guaranty Trust Building, from our July number, including drawings and photographs; February 18 starts, we hope, a series on Irish Georgian architecture, with the Four Courts Buildings at Dublin; and February 25 reproduces Theophilus Hansen's Academy and National Library at Athens, and states that the replanning of that city is soon to be undertaken.

The Builder for February 6 contains the Nottingham Municipal Buildings scheme, humorous sketches of "What Not To Do" at Delhi, and Tite Prize and Soane Medallion designs; February 13 republishes the Maxwells' New Art Gallery at Montreal and shows Mr. Frank Atkinson's Midland Adelphi Hotel at Liverpool; February 20 reproduces Competition drawings for the Manchester Royal Exchange, and the rebuilding of the Duchy of Cornwall Estate at Kennington, by Adshead & Ramsey; and February 27 is devoted to Hospitals, illustrating plans and views of King's College and Mount Vernon Hospitals, Edward VII Sanatorium, Children's Hospitals, *et al.*

(From "The Western Architect")



Railway Station, "Schlump," Hamburg
Emil Schaudt, Architect



Soane Medallion, A Royal Palace in the Country
Second Prize, H. Challon Bradshaw

(From "The Western Architect")



Railway Station, "Hafentor," Hamburg
Emil Schaudt, Architect

THE ARCHITECTURAL
REVIEW + MASTERS IN
ART + VARIOUS BOOKS

PUBLISHERS' DEPARTMENT

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WHILE deprecating the evils of competition — as a means of obtaining work! — THE ARCHITECTURAL REVIEW nevertheless gives its pages to their occasional publication, for it also believes that there are just two reasons for the existence of the competition; neither of which, however, justifies its continuance as at present conducted. One is the undoubted training it provides for those who compete — a particularly valuable matter when the architect, young in his profession, has in the ordinary course of his day's work to deal with small and unimportant buildings, while yet desiring to maintain a familiarity with larger and broader problems. Secondly, as a means of general education to the profession at large, by providing them with opportunities to compare those different solutions of the same problem arrived at by their rivals or contemporaries. The first reason justifies the competition, as it *might* be — but, as yet, is not, — conducted by the Beaux Arts Society, — providing it would be concerned less with rendering, and more with such problems of plan and design as actually arise in connection with the practice of well-known architectural firms. The second reason we believe justifies our occasional publication of a selection of the best or most varied designs submitted in these competitions — as was the case with the Hamilton County Court-House last December, or with the Pittsburgh Court-House-City Hall Competition last month. Another — and a very exceptional — reason permits us consistently to call attention to the competition inaugurated for the Australian Capitol Building at Canberra. Without particular regard to the details of the program, it places itself well above the ruck of such documents by boldly raising the standard of originality and appropriateness in design. This competition therefore becomes less a contest in solving the incidental requirements of a comparatively hackneyed problem than in the realization of a new type of architectural design. That this qualification tends to eliminate most architects in, and many out of, America is undoubtedly to be regretted. With that national defect in mind, we venture to appear as protagonists for this competition. May its novel environment so stimulate the unused brain-cells of the architects of America that they may come to think sanely, fundamentally, and broadly on basic essentials of the art of building design, and so obtain for themselves both of the benefits that we have advanced in our argument for competitions that head this column!

The permanent buildings of the Panama-California Exposition group, shown in this issue by their working drawings, are by Cram, Goodhue & Ferguson, Architects (New York office), while Mr. Bertram G. Goodhue is the Advisory and Consulting Architect to the Ex-

position. The bridge was designed by Frank P. Allen, Director of Works, and Piccirilli Bros. executed the models and figures.

The publishers of THE ARCHITECTURAL REVIEW regret that the plans of Messrs. Kiehnel & Elliott for the Pittsburgh Court-House-City Hall Competition, reproduced in the March REVIEW, did not also give credit to Prof. Henry McGoodwin, who was associated with them in this competition, and whose name should have been placed upon the drawings with theirs.

Book Notes.

BUILDING DETAILS, PART XII. Drawn and published by Frank M. Snyder, New York. Price, \$3.00, net. The latest issue of this indispensable architectural-publication is almost exclusively devoted to two subjects. The entrance to the Little Theater in New York City, comprising four plates, and the lower three stories of the Venetian Gothic façade just off Broadway on East 44th Street, known as the Wetzel Building, the latter an unusual design in brick and terra cotta. The exception is one plate given to three types of old iron railings. The issue thus becomes of less general application than some previous numbers. A somewhat unfortunate emphasis is placed upon the Little Theater entrance which, studied in the particularity of detail that this exhaustive illustration provides, appears less successful and commendable a Colonial type than appears from a casual examination. In Plate 112, for instance, the key and block at the spring of the arch are altogether out of scale with the remainder of the stone-work at the entrance, and extravagantly out of relation to the delicate woodwork enclosed. While this opportunity to study the relation between cause and effect will be valuable to many architects, one is rather afraid that the general effect throughout the country will be less fortunate, because of the architectural tendency to literally reproduce or unintelligently copy precedent provided in so exact and definite a published form. The exaggerated attenuation of the columns, wood and stone, the absurd base molding of the interior pilasters shown on Plate 113, for instance, are among the unfortunate precedents an architect remote from an opportunity to study true Colonial detail might elect to use as an example. The details provided of the Venetian Gothic façade are interesting and valuable, and the draughtsmanship and arrangement of the plates remain as superb as ever.

MONT ST. MICHEL AND CHARTRES, by Henry Adams. 8½" x 10." 401 pages, 13 illustrations, and 10 cuts in the text. Price, \$6.00, net. Houghton Mifflin & Co., Boston, 1913. Despite the architectural suggestion of the

title, and the fact that this book was "published by authority of the American Institute of Architects," the ordinary reader will probably be disappointed to find that barely five or six of the sixteen chapters have any *direct* concern with architecture, while only two or three of these chapters deal directly with either Chartres or Mont St. Michel. To those readers interested in the historic and local background of these buildings, the book will be of the greatest interest, inasmuch as it has to do with the politics, literature, theology, religion, history, and art of those periods that are concerned with the development of the architectural styles that flowered, perhaps to their best and most perfect and interesting forms, in these two typical structures. The major portion of the volume deals with the Song of Roland; the various miracle stories; the religion and customs of the Courts; with the history of the Mystics, the life of Abelard St. Thomas Aquinas, and other details intimately concerned with the time that produced the architectural forms, glass, and carving that have existed until to-day. This information would have been furthered if the illustrations had been greater in number. The introduction informs us that this is a reprint of a volume already privately printed but not before available to the general public.

THOMAS JEFFERSON AS AN ARCHITECT AND A DESIGNER OF LANDSCAPES, by William Alexander Lambreth and Warren H. Manning. 7½" x 11". 168 pages. 44 illustrations. Price, \$10.00, net. Publisher, Houghton, Mifflin & Co. This volume, besides a frontispiece of Jefferson, contains twenty-two pictures through the text, and as many plates. It deals with the work of Jefferson in these two directions, and quotes from memoranda, journals, and drawings. Except the cover-design, the volume is typographically tasteful. Unfortunately only Monticello and the University of Virginia are illustrated, with the single exception of Farmington, an alteration to an old Virginia farmhouse. The added plates are reproductions from letters and note books, sketches, and detail drawings. While this appreciation of the abilities of Jefferson is grateful, — and should undoubtedly be of educational interest and value to the ordinary reader, — the architect cannot help but wish that other and less well-known authentic work of Jefferson might have been included, and also that the illustrations interspersed with the text should have been presented in a clearer form than the rather vague half-tones in which they appear. Mr. Manning's contribution on Jefferson's abilities as a landscape-designer treats of an even less-known aspect, which has its own special interest. The whole volume appears to be intended rather for the general reader than the student in search of exact architectural information.



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The Architectural Review

Volume III (Old Series, Vol. XX)

April, 1914

Number 4

The Buildings for the Panama-California Exposition San Diego, California

Bertram G. Goodhue

Advisory and Consulting Architect to the Panama-California Exposition, San Diego, 1915

THE Panama-California Exposition, which is the official title of the celebration more popularly known as the "San Diego Exposition," inaugurated in 1909, has been developed with unusual far-sightedness on the part of its promoters. They were first unusually fortunate in selecting a site so naturally interesting as Balboa Park, a fourteen-hundred acre tract of land, for the Exposition grounds. This site, only ten minutes' distance from the business section of the city, stands three hundred feet above the sea-level, dominating the city and the bay, an ideal site for both park and exposition purposes. The light on the dome of the California State Building, five hundred feet above sea-level, will be visible for one hundred miles at sea. It was determined, at the very start, to make the construction of the various buildings as nearly durable as was possible, so that the



Preliminary Sketch, Administration and California State Buildings

entire tract would remain as a park and show-place to benefit permanently the community.

This, of course, particularly applies to the natural development of the tract; while the buildings, besides conforming to one characteristic and appropriate style of architecture, are also, generally, being so constructed and designed that, being built of durable materials, they can later be utilized as museums, art galleries, auditoriums, etc. The California State Building, for instance, will remain as a State Institution for the dissemination of information on California and her natural and business resources, and so is built of reinforced concrete, that it may safely be used as a depository for historically valuable and rare material.

The principal approach to the grounds is across a big seven-arched bridge over a ravine through which flows a water-course of considerable size. Be-



Preliminary Sketch, Interior Court of the Agricultural Building

neath this great Cabrillo Bridge the stream has been widened to make a small lagoon, which reflects the arches, towers, and dome of the California permanent group. The Exposition end of this bridge is spanned by a florid gateway, through which one passes into a small plaza, bounded at the right by the Fine Arts Building and at the left by the permanent State Exhibition Building, the two principal structures providing the artistic and architectural key to the entire Exposition development; and it is these two buildings and their details that are particularly shown on the plates of this issue. Being the first portion of the Exposition to be seen from the long approach along Laurel Avenue, this group is most important in striking the architectural key-note for the architecture of the Exposition. This small plaza has its arcaded cloisters, providing those deep shadow-reveals characteristic of much Spanish work, so effective in contrast to the dazzling sunlight of a southern clime, and almost equally grateful in providing pleasant relief from the heat of the noon-day sun in Southern California. The general scheme of the Exposition is shown in the small sketch-plan reproduced herewith, which suggests something of the natural contours of the site; and the effectiveness

of the long vista from the entrance gateway to the crowning focal point provided at the end of the avenue, at the other end of the Exposition grounds, by the heroic statue of Balboa. It displays as well the arrangement of the principal buildings in a series of disconnected, yet related, plazas maintained throughout the Exposition group.

The climate of San Diego will make it possible to surround the buildings with a luxuriant growth of tropical vegetation and turn the entire Exposition grounds into an horticultural exhibit

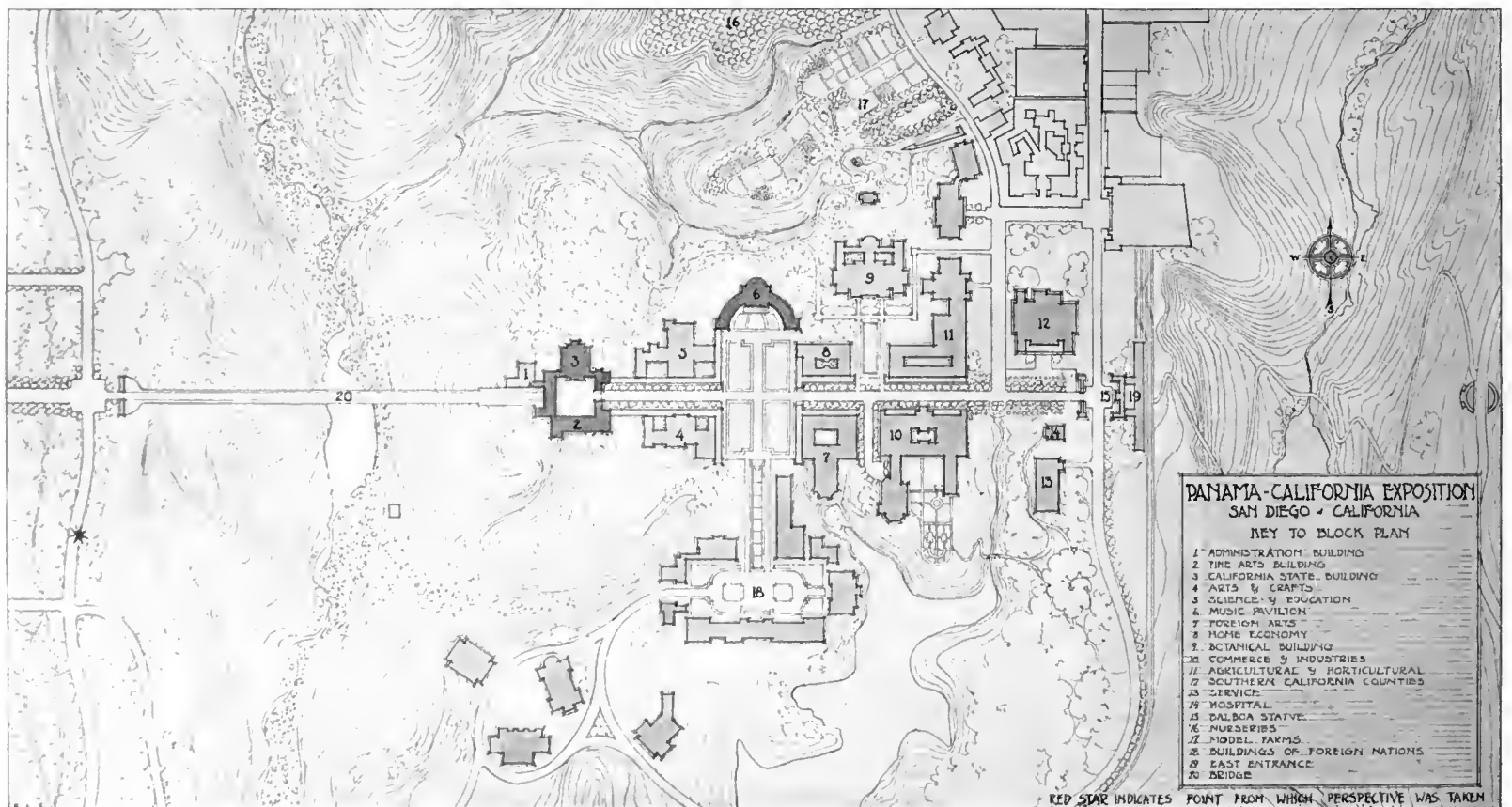


Tower on Southern California Building

of unusual variety and great extent. In one portion, that section devoted to Southern California, it is proposed, for instance, to have seven hundred orange trees of bearing-age as an exhibit of one of the principal products of the State.

It is not often that an Exposition is undertaken in such a forehanded way that it permits of developing a completely related architectural scheme. Something of this sort was true of the East Indian Exposition in England; but no instance is recalled in this country, since the Court of Honor of the World's Fair at Chicago, where such consistency has been attempted or maintained.¹ Certainly, there does not come to mind a single case where the entire development of such an exposition group has been placed in the hands of one designer. At the San Diego Exposition Mr. Bertram G. Goodhue was requested to control the entire architectural scheme,—at least so far as it applied to the principal structures to be erected,—a peculiarly fortunate selection, as Mr. Goodhue has long been familiar and sympathetic with the type of architecture that was deemed most appropriate for these buildings; ever since the time, years ago, when he accompanied Sylvester Baxter to Mexico to discover and collect material for an exhaustive illustrated work on the Span-

ish-Mexican architecture of that country; and he has, since that period, occasionally employed this type of design with peculiar sympathy and success,—including especially two or three churches in Cuba, the Canal Hotel at Luzon, and a brilliantly designed Renaissance house at Rye, New York. One of the obvious reasons for selecting this architectural type for the San Diego Exposition buildings was that it had already found a local habitat in the nearly adjacent cities of Mexico — and developed an even more typical North-American expression in the old missions established



Block plan, Panama-California Exposition, San Diego, Cal.



Don Sebastian Viscaino



Coat of Arms, State of California, East Gateway, Permanent Exposition Group



Fray Junipero Serra

along the *Camino Real* of California. This type of architecture has, too, a peculiar appropriateness to exposition design, permitting, as it does, of large, plain surfaces of smooth, unadorned plaster, broken by irregularly disposed and often elaborately decorated door, window, and balcony openings. Its sky-line may be appropriately diversified with domes, towers, and turrets of the most brilliantly available color decoration in tiled surfaces, of which Spain, Mexico, Madeira, and the African Mediterranean coast supply thousands of precedents. For once no reliance is to be placed upon classical arcades or a uniform cornice line; and instead is substituted irregularity of sky-line, brilliant contrasts of sunlit and deeply shadowed areas, boldly modeled ornamental units and glowing color,—all interspersed with and broken by the luxuriant vegetation so bountifully provided by nature.

The modeling of Spanish Renaissance ornamentation is easy, once the general composition is determined, as this style adapts itself readily to many flowing decorative embellishments covering the field around and between the more important architectural motives with which the ornament is utilized. The two or three reproductions of modeled details and subjects for statuary groups indicate how well this part of the work is being executed;

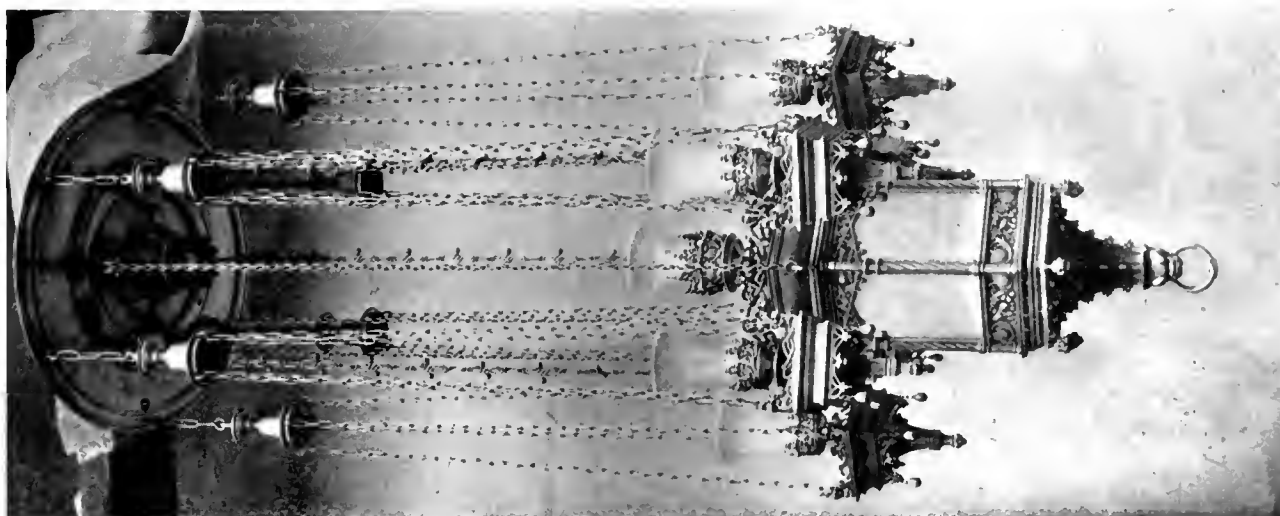
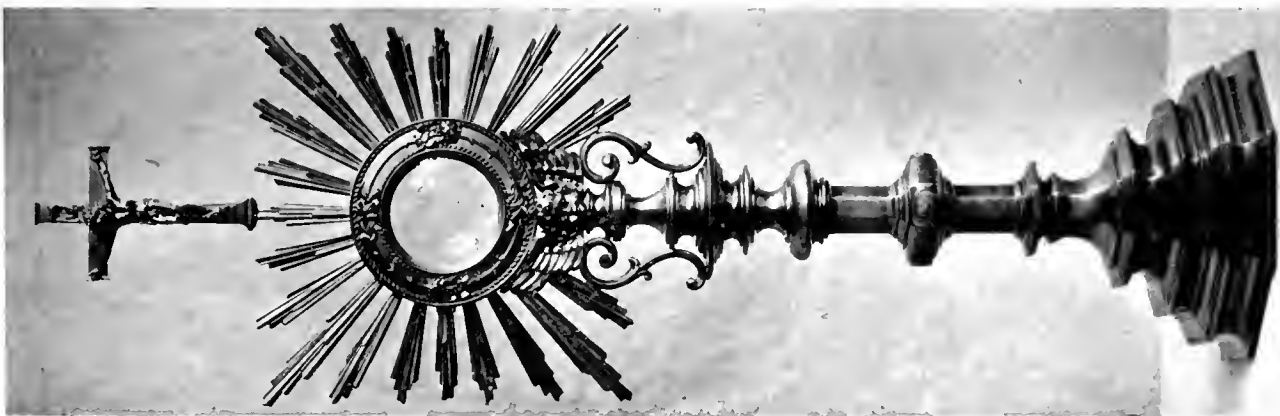
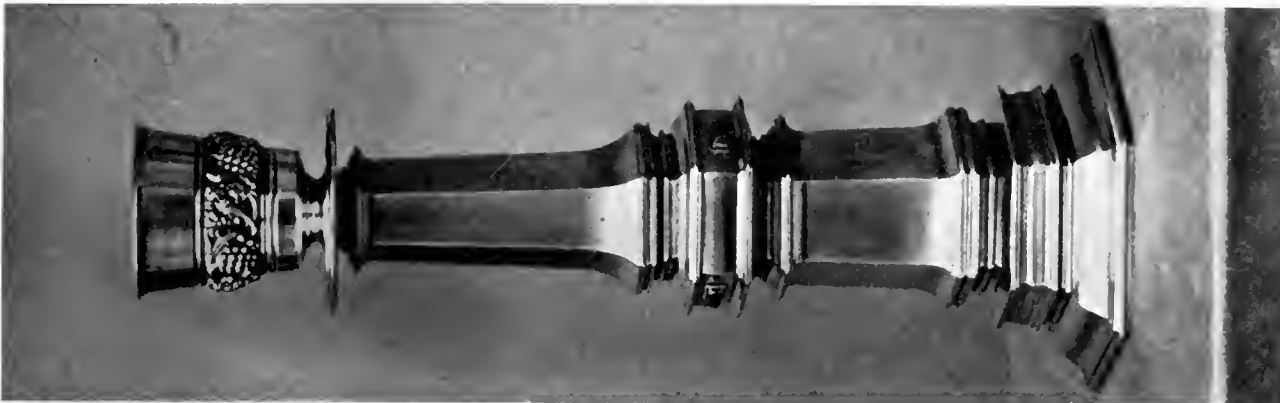
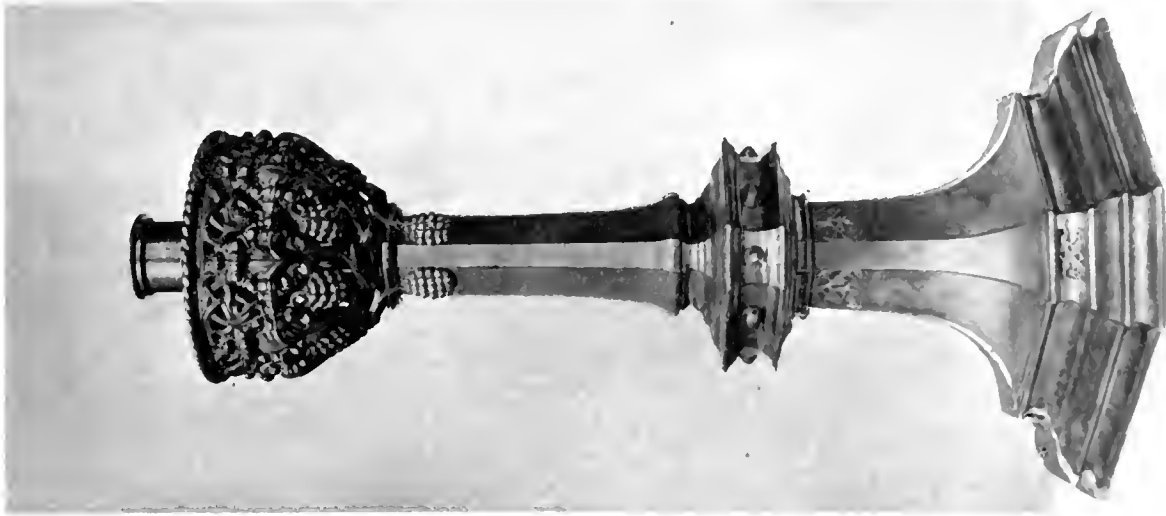
while the photograph of the Tower, from the Southern California Building, cleverly carried out in concrete colored in imitation of Spanish tile, indicates how inexpensively some of the effects are being obtained; as well as how much more successful should be the principal buildings, where far superior workmanship is being required. The two or three preliminary pencil studies, and the views of work in progress that are here reproduced, in addition to these plates of working drawings, are submitted as suggesting the attractiveness of the architectural groupings that will be found around this exposition and in its grounds. The principal buildings have all been inspired by Spanish or Mission precedent. The Home Economy structure follows the lines of the Mexican hacienda of the Condé d' Heras; the Arts and Crafts Building was adapted from the Sanctuario de Guadalupe at Guadalajara, Mexico,—one of the earliest buildings, upon which many of the Mexican missions were modeled; the State and Education Building resembles the Cathedral at Puebla, Mexico; the building for Agriculture and Horticulture, the largest of the group, was suggested by the great 18th-century monastery at Querétaro, Mexico, and the tiled dome of the California State Building is similar to the dome of the Cathedral at Oaxaca.



General View, San Diego Exposition Buildings and Bridge Approach, from Water-Color Drawing by Jules Guerin



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RESIDENCE OF MR. PAUL D. BAUGH, MERION, PA.
TWO HOUSES BY D. KNICKERBACKER BOYD, ARCHITECT



STREET FRONT



STAIRCASE HALL



LIVING-ROOM



DINING-ROOM

DWELLING ON WILLARD ROAD, BROOKLINE, MASS.
BENJAMIN PROCTOR, JR., ARCHITECT

The Architectural Review

New Series, Volume III, Number 4

Old Series, Volume XX, Number 4

APRIL, 1914



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PLATES

PLATES XXIX.—XXXVI.—PERMANENT CALIFORNIA STATE AND FINE ARTS BUILDINGS (PLANS, ELEVATIONS, SECTIONS, AND DETAILS)—CRAM, GOODHUE & FERGUSON, ARCHITECTS, NEW YORK CITY. PANAMA CALIFORNIA EXPOSITION, SAN DIEGO, CALIFORNIA, 1915. BERTRAM GROSVENOR GOODHUE, ADVISORY AND CONSULTING ARCHITECT.

LAST month we quoted upon this page the statements stricken from the *fifth* edition of the Institute "Competition Code" at the New Orleans Convention last year. As these changes radically affect the business practice of all architects,—whether members of the Institute or not,—it seems probable that the mere fraction present at that convention (less than a tenth of its membership; less than two per cent of the profession in America!) may have taken action without that care and deliberation expected by its members and associates. Let us analyze the effect of *one* omission alone, selecting the last sentence in the last article of the fourth edition, which reads: "*No architect who is employed to make sketches at the rate named in Article 9 of the schedule of charges shall be held as having taken part in a competition.*"

The removal of this final sentence makes it unprofessional for an architect to render drawings or studies, on the request of a client, for which his regular fee is to be paid, when other architects are employed by the same client making sketches for the same piece of work under the same agreement — *unless* all the elaborate machinery of the Institute's regular competition code is evoked to approve a complicated program, by means of which these same architects will be forced to provide the same studies for the same owner for the same work WITHOUT PAY! The removal of this clause makes it impossible for an owner having, for instance, a small house to do, and hesitating between two or three available architects, to employ them to make sketches for his house at one per cent of its estimated cost — *at the same time*. It does not prevent him, however, from taking several additional weeks—or months—to achieve the same result by going to these architects one at a time, proposing this arrangement: receiving the sketches from one architect (and remunerating him for them) — when he is entirely at liberty to employ the next architect under the same agreement! As the Institute Competition code leaves the owner the final decision in the selection of an architect, and does *not* impose upon him the decision of the jury (even if he *should* decide to have these same architects compete for him for nothing under that cumbersome arrangement!), its reasons for forcing him to expend his money in hiring a professional adviser and jury, in order to comply with the code, instead of paying the individual architects whom he selects to make studies for him, may seem worthy of investigation by those of its members whose right to earn a living by the practice of their profession they thus see taken from them.

It is quite conceivable that the owner considers himself — and with good reason! — able to state his case to the architect as well as the professional adviser. It is quite conceivable that the owner to a great extent depends upon the result of his inter-

view with the architect in making his conclusion as to the desirability of employing that architect to do his work. It is quite conceivable that the interchange of idea brought about in discussion between the two will do more to prove the fitness of the architect to satisfy the requirements of the owner than the sketches he will later be able to produce. It is more than likely that a short interview between architect and owner, accompanied by a few offhand sketches on the part of the architect, will serve all the owner's necessities in showing a grasp and appreciation of his problem, and so save all the unnecessary labor and waste of time and money enforced upon the architect to make the far more pretentious studies and sketches necessary to conform with *any* formal program, no matter how simple. If the Institute seriously desires to encourage the owner to pick out an architect,—and *not* to "select a plan,"—they should endeavor to remove all obstacles between a personal interchange of opinion between the two principal parties to the contract, rather than to impose additional obstructions, as has been the progressive tendency of its competition code.

HOW little prepared the ordinary architect is to safeguard his somewhat equivocal professional position, in a strictly legal aspect, from any not over-particular sub-contractor, has been illustrated by a recent case: where a sculptor — to wit, one Hugh Cairns — was able to force from an architect the payment of a claim contested by the owner. No pretense was made but that the work was delivered to the client, and that the sub-contractor estimated it from drawings bearing the client's name in the office of the architect; but the contractor's claim appeared, legally, entirely to hinge upon the fact that, despite references in correspondence between the architect and the sub-contractor to the client, the authorization upon which the contractor had gone ahead with the work was an ordinary letter of acceptance and instructions, including those for delivery to the client, signed by the architect,—and that the sub-contractor had later received further instructions in connection with the progress of the work, in the same form, and signed in the same fashion.

All this is undoubtedly the ordinary unbusinesslike process in use in many — if not most — architectural offices. Even a printed contract form of acceptance, despite its formal arrangement, does not ordinarily provide for anything else than the architect's own signature at the bottom; whereas it would appear that the *only* safe and legal way for the architect to avoid personal responsibility for such authorization and instructions as he has continually to execute in the course of his business is to sign *all* important letters — most certainly all those concerned with the letting and authorizing of contracts — with his own name *for the owner as agent*, or with the owner's name placed *above* his own. Even an explicit statement in the body of the letter to the effect of his being authorized by the owner to accept such estimate, or order such work, does not seem legally entirely to clear him from responsibility, as the records now stand.

Restated in ordinary forensic language, it reads as follows: — From Huffcut on Agency, 11th ed.:

¶181. "Where an agent enters into a contract on behalf of his principal, he may bind the principal, or himself, or both. . . ."

¶182. "Where an agent acts within the apparent scope of his authority for a disclosed principal, and contracts *in the name of that principal*, the latter alone is bound. . . ."

¶197. "If an agent contracts personally in a simple written contract, he is personally liable even though his principal is disclosed and may, at the option of the other contracting party, also be held liable. . . ."

"There is one rule, well established by authorities, and defined with a good degree of certainty, which is applicable to this case. It is this, that although an agent is duly authorized, and although he might avoid personal liability by acting in the name and behalf of his principal, still, if by the terms of his contract he binds himself personally, and engages expressly in his own name to pay, or perform other obligations, he is responsible, though he describes himself as agent."—This latter from so great an authority as Chief Justice Shaw of Massachusetts in the case of *Simonds vs. Heard*. 23 Pick. (Mass.), 120, 125.

(From "Architecture")



Masonic Temple, San Francisco, Cal.
Bliss & Faville, Architects

ONCE more finding the principal illustrative interest in a month's American architectural magazines in the dwellings, a large group of interesting domestic work accordingly reappears on our Current Periodical pages in this issue.

Architecture for March illustrates a trio of attractive English sign-posts, a private city garage, the Pierce Arrow Service Building at Long Island City, a New Haven club-house by Kenneth Murchison, San Francisco's Masonic Temple by Bliss & Faville, and Mr. Joy Wheeler Dow's really attractive and old-fashioned meeting-house at Summit, N. J. This Masonic Temple is an interesting experiment, which — depending entirely on these photographs for our impressions — nevertheless apparently suffers from undue contrast between small and delicately ornamented openings and large, bare, and unadorned white wall-surfaces — the result seeming cold and regrettably "bath-tubby" in effect. Two or three attractive smaller houses, including two designs by Bates & How, are also illustrated.

The March *Brickbuilder* contains an article, with illustrations, by Alfred Hopkins, on "Modern Farm Buildings;" much of which is reproduced from his book of the same name. The renderings of Mr. Donald Robb — in the originals appealing largely from their color values — are illustrated; three photographs of Spanish details printed; Mr. Wade's articles on "Architects' Offices" here describe two more New York instances; while Mr. Randall Phillips writes on "Some Modern English Interiors," with a number of illustrations, mostly already familiar; and the report of the Jury of Award on the \$7,500 Brick House Competition is included. The plates

Current Periodicals

A Review of the Recent American
And Foreign Architectural Publications

(From "The American Architect")



Library of Hawaii, Honolulu
Henry D. Whitfield, Architect
(From "Architecture")



Unitarian Meeting-house, Summit, N. J.
Joy Wheeler Dow, Architect
(From "The American Architect")



Helps' Cottages, C. A. Coffin Estate, Locust Valley, L. I.
Howard Greenley, Architect
(From "Architecture")



House at Sagamore Park, Bronxville, N. Y.
Bates & How, Architects

(From "The American Architect")



Children's Court Building, New York City
Crow, Lewis & Wickenhoefer, Architects

contain an interesting collection of brick houses — of, however, rather unequal merit. For instance, those by Cope & Stewardson include so charming and attractive a use of English vernacular motives as the St. Louis dwelling for Mr. J. Lionberger Davis, immediately followed by the old-fashioned, stilted, and inappropriate Thompson house, in the same locality; while the same designers' dwelling for J. D. Davis is a good instance of Philadelphia brick-Colonial architecture, with something of a Georgian aspect added, and the rambling Brookings house has every appearance of a country casino or club-house. The smaller Wallace dwelling again reverts to Philadelphia precedent, although handled in a free fashion that greatly helps adapt it to its informal site. Mr. Howard Shaw's Her-

mann house at Glencoe is typical of his type of work, while La Beaume & Klein's Shepley house at St. Louis is a straightforward brick treatment — with perhaps too much emphasis placed upon its patterning. Two houses by Dühring, Okie & Ziegler, both near Philadelphia, are also printed; of which we prefer the Colonial simplicity and directness of the Williamson dwelling, particularly for locations in American suburbs.

The *Architectural Record* for March publishes a house at Oyster Bay by Stephenson & Wheeler, which is rather more consistently interesting than the same architects' house at New Haven, Conn., published in the same magazine a few months ago — October, 1913 — many of the details being indeed excellently simple and restrained, while the garage and stable also present an unusual and interesting composition. The articles on "Architectural Furniture" continue, along with an illustrated description

of "Hotel Tapestries" and some illustrations of plaster-house models. Warren & Wetmore's Biltmore Hotel is once again published, the emphasis being now placed upon its interior details, and various views of the Panama-Pacific Exposition buildings occur in the latter pages.

The American Architect for March 4 is one of its customary occasional series of *potpourri* reproductions from the Architectural Club exhibitions, taken in this instance from the catalogue of the 29th Exhibition of the New York Architectural League. It reprints Mr. Dow's new Unitarian Meeting-house at Summit; the west window of the Graduate College at Princeton University; a perspective of Messrs. Crow, Lewis & Wickenhoefer's carefully studied Children's Court Building in New York City; Mr. Connick's chancel window at Bangor; along with sketches for two or three improvements on Riverside Drive, new work in Beaver Park, Albany, and for a civic center at Denver — ending with a group of sculptures, paintings, and smaller dwellings.

The issue for March 11 illustrates principally the interiors of a London town house alteration by Mr. W. Gedney Beatty; and a small brick house at Atlanta, Ga., with detail rather too pretentious in type and scale for its modest size.

March 18 contains the final instalment of Mr. Schuchardt's "Observations on the European Housing Problem," in this issue dealing with workmen's houses at Essen. The plates show several

(From "The Brickbuilder")



Garden Front, House of J. L. Davis, Esq. St. Louis, Mo.
Cope & Stewardson, Architects

(From "The Brickbuilder")



Garden Front, House for Mrs. A. A. Wallace, St. Louis, Mo.
Cope & Stewardson, Architects

(From "Construction Details")



Residence for Mr. Sidney M. Spiegel, Winnetka, Ill.
Lebenbaum & Marx, Architects

(From "The Architectural Record")



Residence of J. A. Carver, Esq., Oyster Bay, L. I.
Stephenson & Wheeler, Architects

(From "The Brickbuilder")



House of J. F. Shepley, Esq., St. Louis, Mo.
LaBeaume & Klein, Architects



House of Mrs. M. W. Williamson, West Chester, Pa.
Dühning, Okie & Ziegler, Architects

(From "The Brickbuilder")

libraries: one at Portland, Ore., with some very delicate carving; Mr. Tilton's Somerville Library, and Mr. Benedict's Denver Branch both the latter duplicating plates recently published in other architectural magazines. The usual student work fills out the plate section.

March 25 has a leading article on "Trellis as a Garden Accessory," the best illustrations being from French and German examples; and the plates are largely duplications of Messrs. Bliss & Faville's already published Masonic Temple at San Francisco.

The Western Architect for March has principally to do with the work of George W. Maher, and contains, besides many of his familiar dwellings, an Administration Building for a medical concern at Winona; the Northwestern University Gymnasium (which we believe has already been shown upon these pages, but of which we nevertheless reproduce a new detail); an Engineering Hall for the same university; a public school at Kenilworth, Ill.; and several new and less familiar houses — of which those for Mr. Seymour at Chicago and Mr. Scarborough at Highland Park, Ill., are perhaps the most typical and the most direct in design. The new department of Foreign Review illustrates hardly as virile nor interesting designs as last month, but provides an interior view of Mr. Bruno Schmitz' monument at Leipzig, and the direct and logical treatment of a store front that we reprint.

The National Architect for February devotes the

(From "The Western Architect")



Entrance and Light Standards,
Gymnasium, Evanston, Ill.
George W. Maher, Architect

(From "The Builder," London)



Design for a Public Square
M. Castel

(From "The Western Architect")



Store and Factory at Jaromer,
Bohemia
Joza Gocar, Architect

entire issue to a commercial and unsanctified design for a Philadelphia apartment-house requiring no comment in this — or any other — architectural paper.

The Journal of the American Institute of Architects for March, besides the usual comment and contributions, includes some illustrated "reminiscences" of the New Orleans Convention, some marine paintings in the New York Custom House, and one or two reproductions of Mr. Hébrard's "International City," already commented upon in this department.

March *Construction* deals principally with small houses, of which the suburbs of Canadian cities contain a great variety. The issue closes with an article on "The Garden City Movement," with some typical and generally familiar illustrations.

Construction Details for March illustrates the Butler Brothers warehouse in Minneapolis and a city natatorium and engine-house by Harry W. Jones; with an attractive plaster house at Winnetka, Ill., by Lebenbaum & Marx, that we reprint.

The Harvard Quarterly for December contains two unusually interesting and practical, as well as valuable, articles: one, by Mr. Charles W. Killam, on "The Relation of a State-Wide Building-Code to Housing and Town Planning;" the other being three lectures by Mr. R. Clipston Sturgis dealing with the school-house problem, accompanied by a number of illustrations of public and private schools in and about Boston. Ten plates of measured and student drawings are inserted.

The Architectural Review (English) for March continues the "Stucco Interior Decoration" and "London Clubs;" and also treats of the new Princeton Graduate College, the best-

balanced illustration that interesting group has received. The plates include all these subjects, a new London building by Gerald C. Horsley, and the simple, but distinctive, vicarage of Italian character by Adshead & Ramsey that we reproduce. Perhaps the most interesting pages are those reviewing the recent volumes on Mr. Lutyens and Mr. Platt, where the inevitable comparison is instructive to American readers — because of the "British" peculiarities of its point of view.

The Architects' and Builders' Journal for March 4 reproduces the Duchy of Cornwall Estate buildings, published in *The Builder* last month; March 11 describes the competition for King's Cross Station, and March 18 publishes a Georgian house at Richmond Hill, Surrey, other plates being mostly of archaeological interest; and March 25 reprints the Messrs. Maxwell's Art Gallery in Montreal, six designs in the New York Court-House Competition, and Mr. Cass Gilbert's Minnesota capitol.

The Builder for March 6 publishes Mr. George Hubbard's brick Georgian almshouses at Nottingham, and the fifth instalment on "Bronze Doors;" March 13 contains a review of Mr. Lutyens's book, some French prize drawings, including M. Castel's grandiose "public square," shown above, and German town plans and housing developments. March 20 shows new and old shop fronts; the Little Theater, Adelphi, London; houses by Ernest Newton, Mr. Goodhart-Rendel, and two working drawings of the Théâtre des Champs Elysées, shown in our November issue. March 27 has Mr. Blomfield's additions to Lockley's at Hertfordshire; a Nurses' Home by Walter Brierley, and several Architectural Association studies.

(From "The Architectural Review," London)



St. Anselm's Vicarage, Kennington, London
Adshead & Ramsey, Architects
(From "The Builder," London)

(From "The Builder," London)



House, London, England
H. S. Goodhart-Rendel, Architect



Purey Cust Nursing Home, York, England
Walter Brierley, Architect

(From "The Builder," London)



Public Offices, Harrow-on-the-Hill
Harry Prince, Architect

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IN the second of Mr. Joseph L. Heacock's valuable articles on Philadelphia Ledge-Stone Work, not only does he advance to the consideration of modern work based on the historic material illustrated in the first instalment, in the December, 1913, ARCHITECTURAL REVIEW, but he also takes up those practical questions with which the architect interested in using masonry of this type will be most concerned, including excerpts from specifications, and a careful consideration of the treatments of various stones, their jointing and pointing. Besides the illustrations in the text, the plates of this issue, in both the line drawings and half-tone group, will further illustrate the proper use and great variety obtainable from this material.

The principal plates are given to the Princeton Charter Club, a particularly attractive building of Colonial Georgian treatment, employing ledge stone rather than brick for the exterior, and consistently utilizing Colonial detail throughout the interior as well. The four American Country House plates include a house by Wilson Eyre & McIlvaine of peculiar distinction in its successful combination of brick and ledge stone in simple, straightforward treatment, distinctively modern and American in type. It represents the best sort of insular dwelling design, combining those merits of arrangement and composition derived from historic work, along with the direct and appropriate use of the material.

In continuation of a policy inaugurated some time ago, this issue contains one of a series of distinctive modern houses of moderate cost, which will be illustrated — by working drawings and photographs — and appear at least as often as every other month during the next year. These houses will, in each case, be representative of the work of an American architect having a reputation for successful dwelling design. The house in this issue, by Mellor & Meigs, was also chosen because of its obvious reference to our leading article. The houses already selected to be included in this series comprise work by C. A. Platt, Howard Shaw, Harrie T. Lindeberg, and Charles Barton Keen.

Early issues of THE ARCHITECTURAL REVIEW will contain additional plates in the English Country House Series, which will be further supplemented by some unusually interesting American work, especially in the line of country houses, of which THE REVIEW has already accumulated a considerable number, of exceptional interest and architectural

merit. The English series of plates of Modern English Churches will be resumed shortly, but has been temporarily interrupted on account of the delay in obtaining some photographs of work that are particularly being taken for use in THE ARCHITECTURAL REVIEW.

Of Interest to Draughtsmen

A competition on a novel subject has been initiated in the endeavor to secure appropriate designs for street and building decoration during the celebration of the 250th anniversary of the settlement of the city of Newark, N. J., occurring in 1916. The Committee desires to obtain an harmonious scheme of color decoration for certain streets and the buildings facing upon them. The competition, however, is open only to architects or other designers residing in New Jersey, and closes October first. Four drawings, on sheets of 26 x 40 inches, are required, giving a plan of the entire scheme, with larger size details, and including the lighting-scheme for night decoration and a perspective of a "Court of Honor," which are parts of the problem. One sheet to be rendered in color.

The first, second, and third prizes are \$500, \$300, and \$100 respectively. The Committee on Parades and Decorations will be the sole judge, but agrees to secure a disinterested professional adviser or jury to aid in selecting these designs. Further information may be obtained from this Committee, the Kinney Building, Newark, N. J.

This competition is undertaken with the assistance of the New Jersey Chapter of the American Institute of Architects, indicating a new means of coöperation in rousing local civic pride and helping toward the aesthetic improvement of a community through a medium of widely popular and visual appeal.

Mrs. Harry Paine Whitney has offered prizes for the best painting, piece of sculpture, black and white drawing, and poster on "The Immigrant in America," hoping to secure artistic expressions of the meaning of America to the immigrant. The four prizes for the painting or piece of sculpture will be \$500, \$250, \$100, and \$50. For the best black and white drawing and the best poster there will also be prizes of \$100 each. The competition will close November first, and an exhibition of all the designs submitted will be held in New York City from November 15 to December 15. The contest is in immediate charge of the *Immigrants in America Review*, and a board of nine judges will be announced. It is expected this contest will help awaken artistic America to the portrayal of the position of the immigrant in American life. All inquiries for information can be made to Frances A. Kellor, 95 Madison Ave., New York City.

Book Notes

VITRUVIUS, TEN BOOKS ON ARCHITECTURE, translated by Morris Hicky Morgan. 6 $\frac{3}{8}$ " x 10". 331 pages. 72 illustrations. Price, \$3.50. Harvard University Press. Rather unexpectedly, perhaps, this volume, aided by its careful selection of illustrations, proves to have even a practical application and value to the architect of to-day. While some of the text deals with subjects that are now hardly considered necessary to the special training of the architectural designer, yet nevertheless much of it is of surprisingly real interest, and there can be no doubt that any professional reader would benefit by a study of the ten books, complete, quite aside from the obvious archæologic interest of having at hand so easily handled and compactly printed a volume for this classical reference work.

This should also help to make the volume appeal to many general readers, while the more they benefit by much of the information here set down, the better and more rapidly may come about the development of our future American architecture. There remains, of course, somewhat the same danger that now surrounds the reading of Ruskin, in that such an untrained and ordinary reader will not be able intelligently to select the wheat from the chaff, as, after all, much of this volume must be read, comprehended, and, especially, applied in the light of more recent knowledge and information than such an ordinary reader would be likely to possess. Nevertheless, it remains a work that should be commended alike to the attention of the general reader and to the architect.



Plot Plan, House for L. T. Beale, Esq., St. Davids, Pa.
Mellor & Meigs, Architects



Photo by Mary H. Northend, Salem, Mass.

TUCKER-RICE PORTICO
at Salem, Massachusetts.
Built in 1807 of White Pine.
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The second number of the White Pine Series of Architectural Monographs, published bi-monthly under the personal direction of Mr. Russell F. Whitehead, formerly editor of "The Architectural Record" and "The Brickbuilder," will be mailed October first. The subject will be "New England Colonial Houses of the Eighteenth Century," with text by Mr. Frank Chouteau Brown.

If you are not receiving the monographs, and you feel interested in having them, kindly advise Russell F. Whitehead, 132 Madison Avenue, New York City, who will be pleased to furnish you with the second and all subsequent numbers.

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The Architectural Review

Volume III (Old Series, Vol. XX)

August, 1915

Number 5

Ledge-Stone Work of Philadelphia and Vicinity

Part II. Contemporary Examples and Workmanship

By Joseph Linden Heacock

IN taking up the consideration of contemporary work we shall often note the influence of the old work previously discussed; and while the hallowing effect of age gives to the old a charm which the new must of necessity lack, it is perhaps not too strong a statement to say that much of the later work is being better executed than the old. This good result depends in greatest degree, however, upon the knowledge and ability of the architect superintending the work, as it is, unfortunately, the case that a great majority of present-day masons have not the taste and idea of proportion and line with which we are wont to credit the artisans of former times.

This is well illustrated by a comparison of the charming effect of the stonework in the gateway designed by Mellor & Meigs (Fig. 22) with the result obtained by the same mason when directed to duplicate this type of masonry. He was, unfortunately, permitted to proceed without supervision, and therefore felt justified in exercising his own judgment in improving upon his model. The result, as shown in Fig. 23, needs no comment. However, in justice to the masons, it is fair to say that experience shows that the majority are anxious to do good work; and if the architect can but convince



Fig. 22. Garden Gate in Ledge Stone
Mellor & Meigs, Architects



Fig. 23. An Inartistic Use of the Same Stone



Fig. 24. Detail of Wall, Schoolhouse at Bristol, Pa.
Heacock & Hokanson, Architects

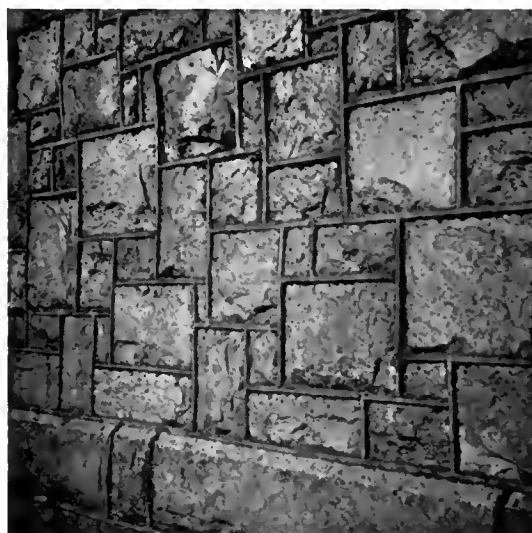


Fig. 25. Detail of Wall, Showing Use of Unbroken Stone

them of his knowledge of the subject sufficiently to gain their confidence and interest they will sometimes cooperate with surprising intelligence. It is the writer's experience that much better results will be obtained from any class of mechanics if the architect will endeavor to have them feel that their cooperation is necessary to the successful consummation of his design. It will pay to explain why certain things are being done, and thereby let them work understandingly rather than merely under orders. An architect would probably refuse to execute work for a client under similar conditions of lack of knowledge and sympathy, and the analogy is not too far-fetched to be pertinent. In these days of criticism of labor unions, strikes, and poor workmanship this sentiment may be thought overly optimistic, but a trial of its effectiveness will at least prove an interesting experiment.

An illustration in point is of an Italian mason who, when he was shown how he might improve the appearance of his work, split into small sections the large, ugly blocks of stone delivered from the quarry and so obtained the result shown by Fig. 24 instead of that shown by Fig. 25. While the first example leaves much to be desired, it is a most obvious

improvement over the latter; and it is interesting to note that each of these examples is executed of the same stone and by the same mason.

Another illustration occurred in the construction of the bank shown in Fig. 26, on this page. While the specifications for the stonework were clear, the mason, a quaint old German, was not familiar with the character of the work required, and failed to estimate properly for its cost. However, after being shown some excellent examples of work of similar character, and being convinced that he could accomplish an equally good result with rough ledge-stone, quarried from a near-by field, he became so enthusiastic that — as he expressed it — he did n't care how much it cost him, he was going to make it the best job in the town; and he succeeded so well that his pride in the result far outweighed what was perhaps a considerable monetary loss.

One other incident in connection with this building will illustrate the op-

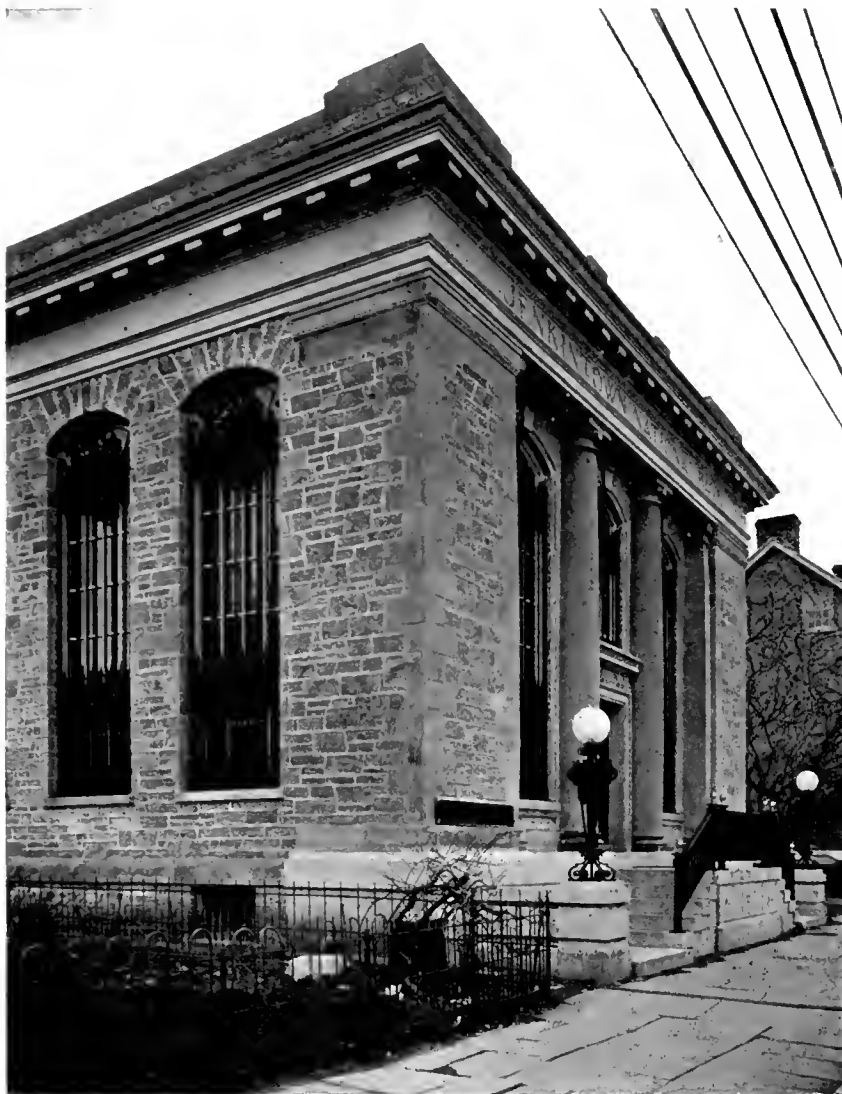


Fig. 26. Jenkintown National Bank, Jenkintown, Pa.
Heacock & Hokanson, Architects

portunities the architect so often has of developing that which the mechanic has not been able to comprehend. This stone had previously been used only in some crude, unsatisfactory rubblework; and its selection was due to the architect's attention being drawn to its rich color and good texture, as shown by a narrow corner-draft cut in order to more easily plumb up the corners in the rubblework mentioned. Believing this stone would give precisely the result desired, approval of its use was obtained after a rather strenuous argument, the owners having many misgivings as to its cheapness and poor quality. The result, however, was one with which both they and the architects were thoroughly pleased, the color-blending of the ledge-stone and pointing with the limestone trimmings being especially satisfactory.

In practically all the following examples of stonework, the writer is greatly indebted to the authors of the designs for their interest in selecting



Fig. 27. Details of House of Joseph L. Heacock, Germantown, Pa.
Heacock & Hokanson, Architects

for his purpose examples of their work which they all individually felt were among the most satisfactory executed by them. He feels that this should give an added interest and value to this discussion, inasmuch as it thus expresses the opinion of a number of men skilled in the use of the particular medium in which their selections are executed; while the choice of examples, if made by one man, might well be expected to reflect too strongly his personal tastes.

In the illustration of the residence near Bryn Mawr by Messrs. Wilson Eyre & McIlvaine (see Plate Illustrations), the local stone is used almost exactly in the same manner as in the old Mennonite meeting-house (December, 1913 — Fig. 4). In addition, the unusual use here made of brick for head, sill, and jambs of windows shows how interesting a combination of this material with stone can be, and how beautifully in scale the two materials may be kept. The steps in the foreground — apparently of the same material



Fig. 28. Detail of Cooke House, Chestnut Hill, Pa.
Wilson Eyre & McIlvaine, Architects

as the house — could not be in better taste, and are an exceptional example of how well a house may be adapted to its surroundings by the use of materials harmonizing with both structure and site.

A somewhat similar example, though one in which it was evidently the aim to obtain a more unconventional wall-effect by the prominence and rough character of the pointing, is seen in the Beale house at St. Davids, by Mellor & Meigs (see Plate Illustrations). The stone here is similar to that in the dwelling previously mentioned, and in Fig. 4; but the pointing-mortar has been roughly applied with a trowel and brought well out to the side edge of the stones.

Another example of Messrs. Eyre & McIlvaine's work, showing a somewhat different and very excellent type, is that of the Cooke house at Chestnut Hill (Fig. 28), in which a larger and longer stone is used, giving more of the horizontal-line effect — and in which the point-

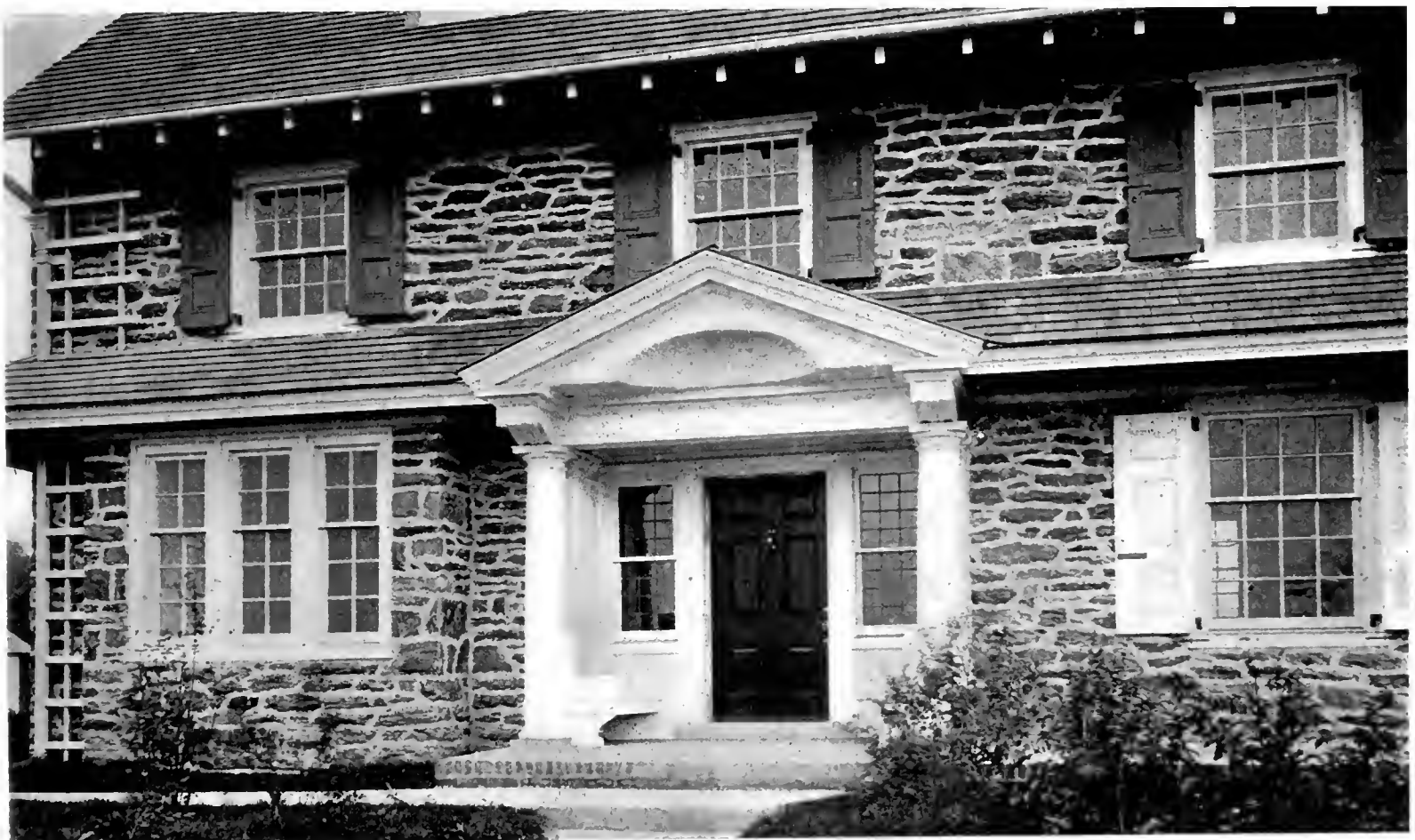


Fig. 29. House at Cynwyd, Pa.
Mellor & Meigs, Architects



Fig. 30. Detail of Ledge-stone Work, House in Germantown, Pa.

Heacock & Hokanson, Architects



Fig. 31. Detail of Ledge-stone Work, House in Germantown, Pa.

ing is much less prominent, being kept well back from the face of the stone.

In the case of the house in Germantown (Fig. 27) this inconspicuousness of pointing has been carried still further by the device of merely raking out the rough structural mortar as deeply as was practicable (Figs. 30 and 31), omitting all attempt at pointing. From these two examples — Figs. 27 and 28 — it is obvious that it was the intention to obtain as great an effect of stone and shadow, free from pointing-lines, as was possible.

It may be interesting to note in Fig. 27 that the sills of the bay windows are dressed from the same materials as the walls, and also that the coping of the retaining-wall in the front is of similar stone dressed to a uniform surface on the top. This is not only an economical treatment, but one which in many cases is much more pleasing than the use of dressed limestone, or any similar formal material, would give.

In another house at Germantown, by Messrs. Dühring, Okie & Ziegler, we have a good illustration of the method of stone-laying which is so much used as to be generally recognized locally as the "Germantown type," the pointing being known as the Colonial, or "barn point." This type lends itself to the Colonial style of house so much in vogue, the broad white lines of the pointing bringing the gray of the stone into pleasing harmony with the white woodwork (Fig. 33). Another most excellent example of this Germantown type is the house at Chestnut Hill by Messrs. McGoodwin & Hawley, illustrations of which were published in the December (1913) number of *THE ARCHITECTURAL REVIEW*.

In studying these illustrations it should be recalled that, in the photographs, the contrast between the color of pointing and stonework is unduly emphasized, due principally to the yellow tone so prevalent in the local stone, which, as any one familiar with photography knows, gives a very dark, and in some cases almost black, result when photographed. The pointing, on the contrary, while usually appear-

ing almost white, is often a very light gray, being a cement and sand mortar with an admixture of lime to give the desired lighter color.

Since the purpose of this article is to illustrate how the material has been used so that others may be assisted in obtaining similar results, an extract from a specification for work of this type may be advantageously introduced. The following, with such changes as will suggest themselves to adapt the specifications to local conditions, should be sufficient for estimating-purposes:

SPECIFICATION FOR FACE-WORK OF WALLS

The face-work of stone walls above-ground to be of material known as "Blank" stone, of best quality, from the "Blank" or other approved quarry. Stone to be long and narrow, laid up in broken range, with top and bottom beds approximately level, but with end joints as stone works naturally — avoiding, however, an excess of vertical joints. Backing-stone to be from same quarry. All stones to be laid on the flat or natural bed, and no edged-up stone will be accepted.

The final sentence regarding the "edging up" of stone is open to criticism, being merely the writer's opinion in the matter; as in perhaps the majority of work of this type the bond-stones on the corners are edged up, and unquestionably their use in this manner gives an emphasis and variety to the corners which the flat bedded stone lacks. Many architects also edge up some stones through the body of the wall, with the idea of getting more variety — both of form and color. Such matters are better left to the judgment of the individual, the writer's preference and reason being that the flat bed is the structural, and therefore the more logical, method.

When we come to consider the pointing of stonework referred to in the foregoing specifications, we find several successful types, the choice again resolving itself into an individual preference.

In all cases the rough building-mortar should be carefully and deeply raked out and stone surfaces thoroughly cleaned, using a wire brush and even an acid wash if necessary; as, should any of the rough mortar show

Fig. 32. Detail of Pointing
Dühring, Okie & Ziegler, Architects



Fig. 34. Entrance, House at Bryn Mawr, Pa.
Charles Barton Keen, Architect

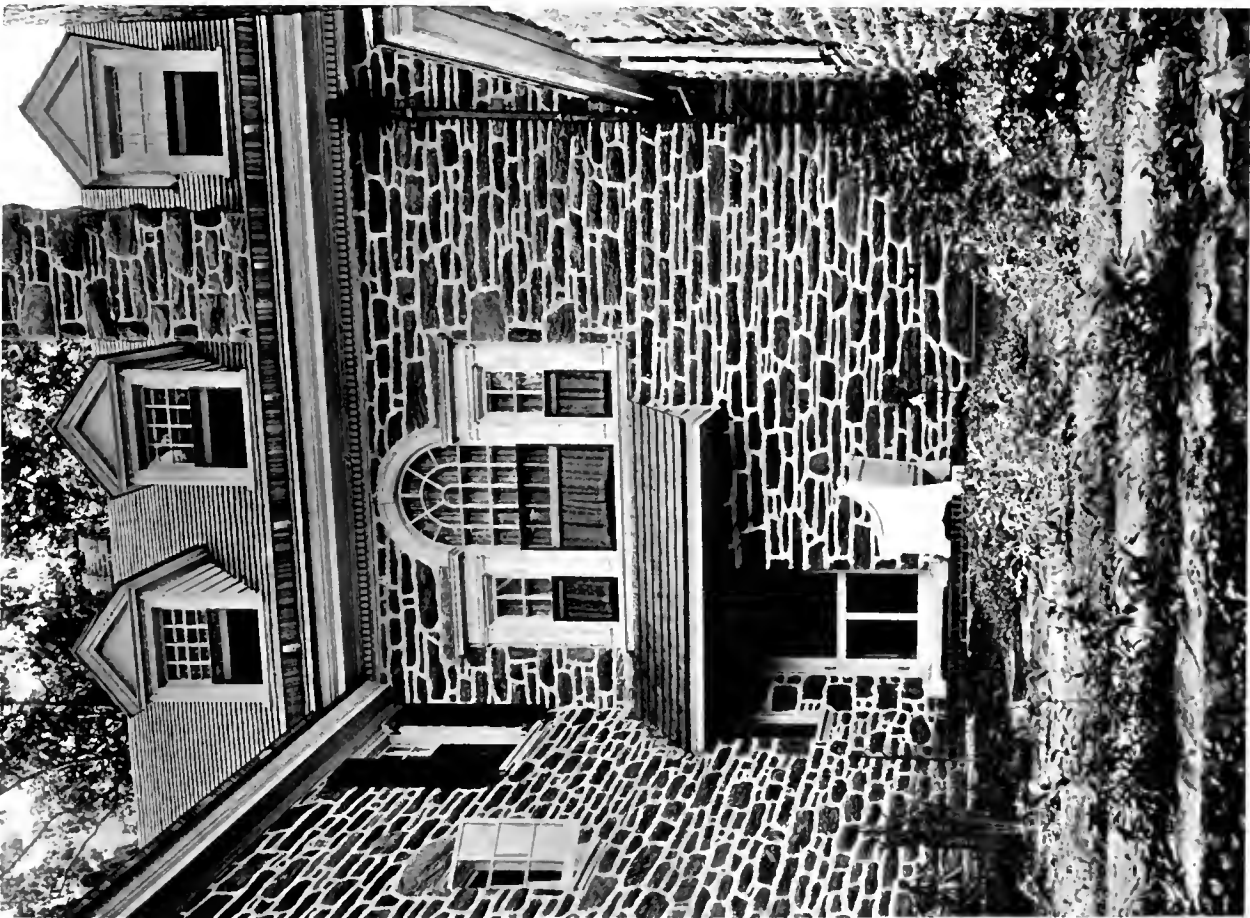


Fig. 33. Rear Hall Entrance, Clarence M. Brown House, Germantown, Pa.
Dubring, Okie & Ziegler, Architects



Fig. 35. Porch, House near Pittsburgh, Pa.
Charles Barton Keen, Architect

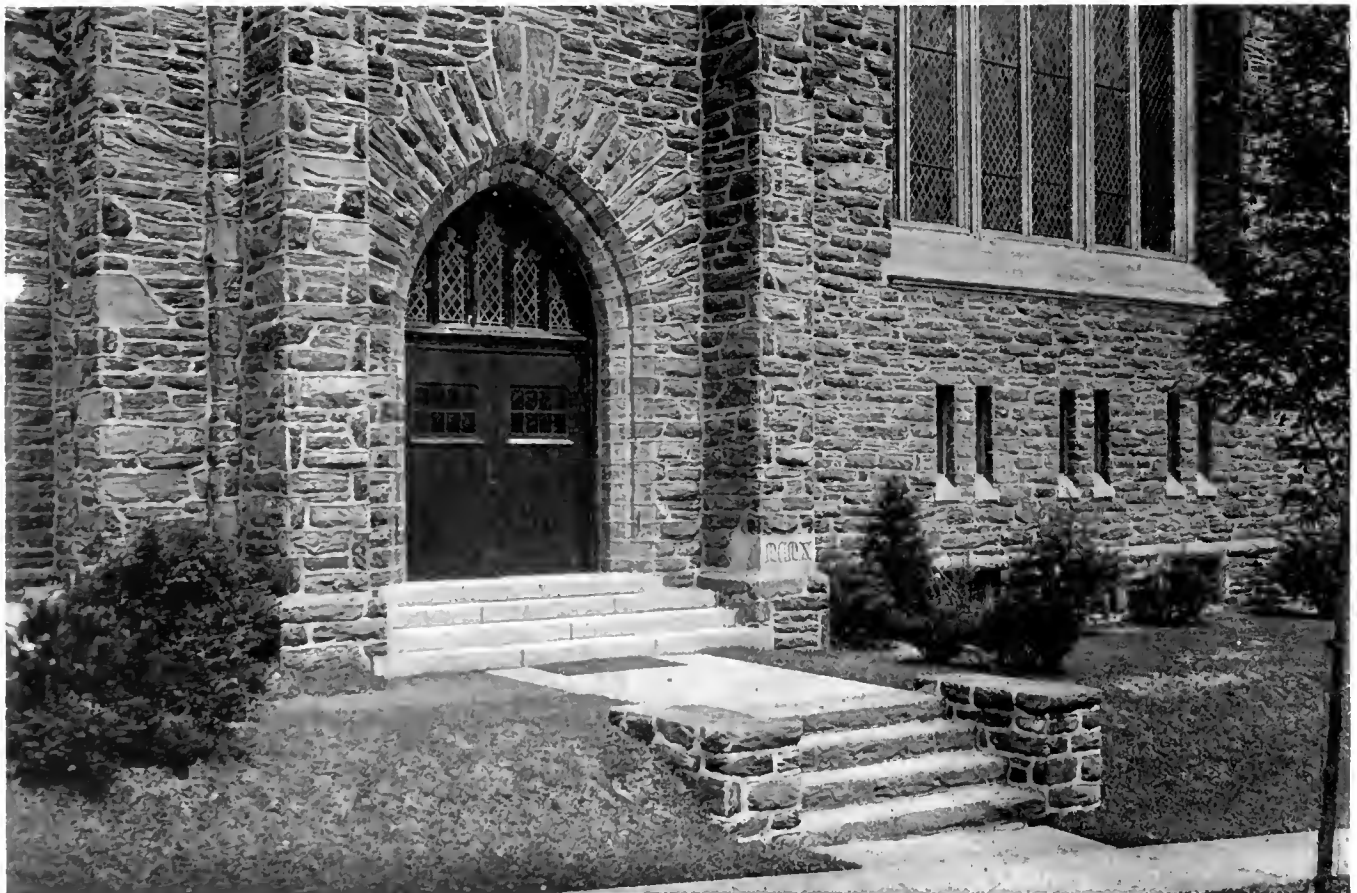


Fig. 36. Detail of Summit Church, Germantown, Pa.
Dühning, Okie & Ziegler, Architects

alongside of or through the pointing, the result will be unsatisfactory. After the wall is cleaned the open joints are crowded full of the pointing-mortar with a small trowel and finished in any one of several ways, but usually as in the example now being considered, Fig. 33. Here the pointing-mortar is brought well to the surface of the stone and finished with what is called a ridge, or weathered, pointing, better shown in Fig. 32.

This is somewhat difficult to describe, though simple of execution. To accomplish it the mason holds his pointing-trowel at a very flat angle with the general plane of the wall-surface, and smooths off the joint at this angle. Then, holding his trowel at an opposite and much sharper angle, he uses the edge to cut away the lower portion of the surface just made, so as to show a ridge about three quarters of the total distance from the top. This latter surface is sometimes left as cut, thereby showing a different texture from the upper slope, and is sometimes gone over with the flat of the trowel to give the same surface as the upper. This pointing as described is done "free-hand" and follows the general trend of the rough joints; but quite often the ridge is formed by running the trowel along a straight-edge, usually held horizontally — without regard to slight variation in the rough joints. If this horizontal pointing is desired, however, the mason should use more care in keeping his rough stone-joints level than is necessary for "free-hand" pointing. An example of straight-edge pointing, though on a more formal stone surface, will be found in the main entrance to the Sharpless house, by Mr. Charles Barton Keen, that will appear as an illustration to Part III.

A more informal variation of the Germantown type is shown in the wall treatment of the house by Mellor & Meigs at Cynwyd, near Philadelphia (Fig. 29). The stone is from the local quarries, and is somewhat different from the Germantown stone, there being more color-variation and the general tone being darker. The manner of laying is practically the same, however, the chief difference being in the pointing, which in this case is a flat trowel-point without any attempt at defining a ridge, and with less attention being given to the definiteness of line. The wide joints are undoubtedly in better scale and taste than would be the case if the



Fig. 37. Bridge over the Wissahickon, Allen's Lane, Fairmount Park, Philadelphia, Pa.



Fig. 38. Old Stone Wall, Lower Burying-ground Germantown Avenue, Germantown, Pa.

such as would give a much greater proportion of horizontal than of end joints. In fact, this relationship of joint would seem to be almost axiomatic in all stonework, from the standpoint of both beauty and stability.

The detail of a church in Germantown by Dühring, Okie & Ziegler (Fig. 36) differs from the other examples chiefly in the matter of the pointing, which is of the familiar ridge, or weathered, type, but a natural cement gray in color. The arch here shown is also very well treated, being in good proportion with the opening and merging well with the general wall-surface. The reveals of the Gothic opening, dressed from the same material as the walls, show what a satisfactory result may be obtained in a

ridge type of pointing just described had been used, as they harmonize better with the generally broad effect of the house and the large, white expanses of wood and stucco.

The entrance detail of the house at Bryn Mawr by Mr. Charles Barton Keen (Fig. 34) illustrates what is perhaps a still more informal use of stone and pointing, but is chiefly of interest for the exceedingly attractive method in which he has

handled the arch — always a more or less difficult problem in broken range work.

Another example of Mr. Keen's use of stonework, the porch detail of a house near Pittsburgh (Fig. 35), is an excellent illustration of the result which may be obtained by the skilful use of what he aptly terms "an unsympathetic material." This stone is the same as is used in that section by the Pennsylvania Railroad for heavy masonry of bridge piers and abutments. In using this stone, as was also the case in the example shown in Fig. 24, the satisfactory result was obtained by splitting the awkward quarry-blocks into shapes

such as would give a much greater proportion of horizontal than of end joints. In fact, this relationship of joint would seem to be almost axiomatic in all stonework, from the standpoint of both beauty and stability. The detail of a church in Germantown by Dühring, Okie & Ziegler (Fig. 36) differs from the other examples chiefly in the matter of the pointing, which is of the familiar ridge, or weathered, type, but a natural cement gray in color. The arch here shown is also very well treated, being in good proportion with the opening and merging well with the general wall-surface. The reveals of the Gothic opening, dressed from the same material as the walls, show what a satisfactory result may be obtained in a very economical manner, and this is a similar expedient to the dressed sills referred to in Fig. 27. As illustrating the local prevalence of good building-stone, all materials for the walls of this church were obtained from the excavation of the cellar, — an incident that is not at all unusual in Philadelphia and vicinity.

As a final consideration of this type, let us refer to the bridge over the Wissahickon at Allen's Lane, in Fairmount Park (Fig. 37), — a most charming example of rustic stonework blending with natural sur-



Fig. 39. House with Painted Stone Joints

roundings. The stone here is very rough in surface, in some cases projecting probably three inches beyond the average plane of the wall, resulting in an unusually effective play of light and shadow. The arch is so flat that the best result has undoubtedly been obtained by its formal treatment. How thoroughly it has been considered is evidenced by the care with which the arch-stones have been lengthened, and the feeling of strength thereby increased as the abutment is approached. The effect of the projecting course at the roadway level, and the use of the curved, roughly dressed stones of the same material for the coping, complete a most satisfactory scheme. To refer once more to the influence of old work upon the new, compare this bridge-coping with that of the very old wall about the "Lower Burying-Ground" on Germantown Avenue, Fig. 38.

Several points just considered in regard to Germantown stonework and similar types may perhaps be emphasized by reference to the house illustrated in Fig. 39. Here it would seem the stonework has as far as possible spoiled an otherwise not unpleasing effect. In the first place, the material is not used understandingly, the combination of long stones, square blocks, narrow strips on end, and small "chinks," improperly placed, giving a thoroughly irrational effect.

The flat arches over windows, while stiff and uninteresting, are not serious, except for the varying size and number of the *coussoirs*; but the treatment of the round arches, and particularly of the small quarter-circle windows on either side of the gable, is very bad. Contrast their stiff hard lines with the rest of the

walls, with the skill shown in the arch-treatment of Figs. 34, 35, 36, and 37, or with the arch of the old barn shown in Fig. 2 (Part I), and further comment seems unnecessary. The crowning lack of taste is evident, however, in the pointing. Of the fillet type, as will be shown in later details, but much wider,—about seven-eighths inch surface,—had it been left as it came from the mason it would have been in itself quite good, considering the unsatisfactory stonework on which it is applied. However, unfortunately this fillet has been given a coat of *white paint*, with a resultant effect so sharp and glaring that the photograph does not adequately reproduce it. The achievement was aptly described by a young woman who said she could see in it "nothing but lines." This treatment is, unfortunately, not an isolated example, but is much too common among builders of this vicinity; and calling attention to its incongruity and ugliness may assist in limiting its use. Furthermore, a practical objection is that, instead of weathering and softening with age, as natural materials do, the paint soon wears through, becomes shabby, and must be repainted, thereby introducing an unnatural element of upkeep cost absent from properly executed work.

In Fig. 40 is shown a large-size detail of ledge-stone with a hammered face used with a flush mortar-joint of rough texture, similar to but smaller in scale than the stone surfaces with which it harmonizes. The use of the long stone near the bottom, where both wall surfaces and the return are cut on the same stone in order to interrupt the perpendicular joint in the internal angle, should be noted.



Fig. 40. Detail of Stonework, United States Post-Office, Bristol, Pa.
Heacock & Hokanson, Architects

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Old Series, Volume XX, Number 5

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PLATES

PLATES XXXVII.—XLIV.—PRINCETON CHARTER CLUB, PRINCETON, NEW JERSEY (PLANS, ELEVATIONS, SECTIONS, DETAILS, AND EXTERIOR PHOTOGRAPHIC VIEWS)—MELLOR & MEIGS, ARCHITECTS.

PLATES XLV., XLVI.—HOUSE FOR L. T. BEALE, ESQ., ST. DAVIDS, PA. (PLANS, ELEVATIONS, AND DETAILS)—MELLOR & MEIGS, ARCHITECTS.

PLATES XLVII., XLVIII.—PRINCETON CHARTER CLUB, PRINCETON, NEW JERSEY (INTERIOR PHOTOGRAPHIC VIEWS)—MELLOR & MEIGS, ARCHITECTS.

"TO be, or not to be, that is the question!" Shall the aspiring architect undertake to earn his livelihood as a professional man, or as a man of business? The privilege of choice is his. On the one hand, he can help further to raise the standards of his chosen profession, as well as secure the enduring esteem of the community where fate—or opportunity!—has laid his lines. In the other case, he can perhaps become more "successful"—as we in America interpret success—and the quicker come to a point where he can begin to enjoy more of life's luxuries.

In which direction will he earn that kind of appreciation that he most desires? Will he choose to fight for a laggard, but more enduring, fame? or does he desire more immediate—and more remunerative—returns? Some modicum of choice always remains to the individual, despite the apparent urge of Fate. To secure recognition and the praise and esteem of his associates is perhaps the most certain present-day proof of ability that prophesies the ultimate realization of high professional artistic ideals. Some firms have gained their promise of more permanent fame through this means, and have esteemed such recognition worth the striving for. Others have cared more for material "success;" have preferred to measure and prove their abilities "in the market-place." To them, too, often has come some measure of repute. "That which a man most desires he shall sometime possess" is a very canting proverb, based alike on practical fact and fallible human nature. Yet that "one man may not serve two masters" is also true. One must be sacrificed to the other; and the problem of the individual remains always to be solved, for all cannot achieve great eminence of place.

Thus are we all confronted with the further question—To which fetish shall we pay public tribute? Failing ourselves in arriving at either pinnacle of acknowledged achievement, shall we accept the responsibility of further prostituting public taste by praising the man of mere business success? or shall we uphold and therefore aid in establishing a higher artistic standard than we ourselves can practise, for the good of the world and the future of the race? This is the standpoint of the unpractical idealist, may be the passing sneer. Yet is the idealist always the leader of the race, the prophet of the future. While the answer must remain largely, if not always, a matter of private conscience, one's public responsibilities are not that way to be wholly disregarded or

escaped, and our individual responsibility remains; while always the appreciation of our contemporaries does much to strengthen resolution and uphold ideals. It helps also to maintain ideals in the younger and the coming men. Especially is this public conscience a matter of great importance in the conduct of professional magazines. Because of their greater responsibility in forming public opinion, there are the nicest standards of appreciation most importantly to be conserved and practised; there every endeavor should be made clearly to display those ideals they choose to maintain. No evasion, then, is possible. They at least must take their stand openly—fully seen and recognized of men! And so, also, should each individual practitioner ask of himself these same questions,—if only to establish principles for his own guidance, at those times when otherwise he might perhaps be influenced by a passing impulse,—of more petty, or less noble, a stamp. If he is always ready to extol good design and craftsmanship, wherever seen, with genuine appreciation, and without regard to mercenary or personal considerations, he will soon earn the right to be regarded as a man of discrimination and judgment; esteemed, in turn, worthy of important commissions from his own business world.

ONE example of a successful business man in the architectural world has recently been exploited in a contemporary magazine. Substantially all its pages have been given to showing his most "successful" products—in the "business" terms he had chosen to employ—unfortunately, rather than in any possible architectural sense! He maintained a tremendously business-like office organization. At one time it was quoted as having completely finished all the working drawings, engineering and otherwise, including details and specifications, of a several million dollar building in twelve days! Such a story, if true, indicates at least the development of a tremendous "plan factory;" but hardly represents to the profession a system from which much architectural excellence or great beauty of execution could result. Such a point of view was, perhaps, not so much to be anticipated when an architect was principally concerned with the completion of tremendous structures,—so carried out as to make them commercially profitable business enterprises for his clients,—until he finally acquired a system so complete he was as able to finance as to design the structure that came to his office. And not that only; he could even go out into the business world and create the demand for his product, in the first instance—so completing the circle whereby his office was continued on the tremendous scale to which it had been developed. In achieving power and largeness of grasp he sacrificed appreciative perceptions of delicacies and refinements. His outlook became essentially Roman. A man of dominating personality, he was gifted with great abilities of organization which, at least once or twice, were employed to redound to his reputation, and that of his profession; and with greatly recognized success. Yet where his contemporaries—as greater artists—gave publicly of their skill, without stint and without expectation or hope of material reward, he did not scruple so to compound his business instincts with his professional conscience as to gather to himself commissions that one more finely fibered might proudly have chosen to disregard, if only for the nicer upholding of professional ideals. And so passed his life away, till, toward its close, while great power and scope still remained to him, he had lost or blunted his better artistic perceptions. They flared up seldom, if at all. As a consequence, his life has left its trail of commercial successes,—a record of neglected artistic opportunities that, for mere reputation's sake, were better far forgotten than recalled!

Such a business organization as has been described is fortunately beyond the dreams, as well as the desires, of most members of the architectural profession; but at what point between this great manufacturing organization and the ordinary small office—run contentedly on the work that comes to it through the natural course of events—is it possible to find and establish the *desideratum*,—a "happy medium" that is calculated to produce the best possible results, from both the point of view of the artist and of the public, of the professional as well as the business world?

(From "The American Architect")



Masonic Building, Camden, N. J.
Heacock & Hokanson, Architects

Current Periodicals

A Review of the Recent American
And Foreign Architectural Publications

(From "The Western Architect")



First Congregational Parsonage, Eau Claire, Wis.
Purcell & Elmslie, Architects

(From "The Western Architect")



Madison State Bank, Madison, Minn.
Purcell & Elmslie, Architects

(From "The American Architect")



House for Bronson Winthrop, Esq., Syosset, L. I.
Delano & Aldrich, Architects

(From "The American Architect")



House for Francis M. Weld, Esq., Huntington, L. I.
Charles A. Platt, Architect

(From "The Brickbuilder")



House at Newtonville, Mass.
Frank Chouteau Brown, Architect

THE July *Brickbuilder* not having been received in time to be considered with other magazines of that month, we are reviewing the June issue, the text of which contains the customary practical articles and the results of the Brick Church and Parish House Competition. The designs reproduced appeal by their prevailing freedom, none being expressed in vernacular Gothic. Among the plate illustrations are Schmidt, Garden & Martin's Paxton house at Lake Forest, a simple English composition with a doorway that somehow does not seem to combine quite successfully with the second-story feature overhead; Mr. Spahr's Speck house at Grosse Point, Mich., visualizing ample expenditure in some of its incongruous elements and unrestrained use of carving and timber work; and a small Newtonville house by Frank Chouteau Brown, which has developed an unusual plan, expressing unusual requirements imposed by clients or site, and an exterior of extreme simplicity and directness in handling the chosen material. Mr. Gilchrist's double house at St. Martin's, while showing thorough mastery of his medium, is hardly of his usual standard; and Mr. Grey's Scientist Church at Los Angeles (already thoroughly illustrated) is not so pleasing or successful as to justify its continued reiteration; while another Science church, at Worcester, is a still more conventional expression of a not particularly

appropriate classical scheme.

Turning to the July magazines, *The American Architect* for July 7 has for its leading article a paper by George Leland Hunter on the architecture of Piranesi, illustrated from his engravings. The plates show two country houses. One, by Charles A. Platt, is curiously different from his usual work in general treatment, although the details—particularly the iron and lattice work—possess a more familiar touch. The other is Delano & Aldrich's Winthrop house at Syosset, L. I., based upon a plaster wall treatment with brick quoins, and somewhat similar to one of the same designers' own houses. It is simple in design and excellent in proportion.

Albert Kahn and Ernest Wilby's Detroit Athletic Club is portrayed July 14. This structure retains many marks of the familiar Italian treatment customary a few years ago. No obvious reason appears for the pilaster order and entablature around the fourth-story window-openings. Would not the entire composition be more restful and pleasing without this unnecessary and rather thin embellishment? The interiors are all dignified rooms, but rather too pretentious in treatment to become comfortable and homelike from constant habitation.

July 21 continues Mr. Hunter's Piranesi article. The plates reproduce several designs by J. A. Schweinfurth; namely, a classical brick and stone Back-Bay Church, the Dickerman

School and a large and rather ornate Colonial house, both in Roxbury, and a smaller plaster house in Brookline.

In the issue of July 28 Mr. Samuel Parsons writes on the "landscape functions" of the Italian Villa, and illustrates his article from old engravings. The plates show a preliminary study for a New York public market by Tracy & Swartwout, a dignified Masonic building at Camden, N. J., by Heacock & Hokanson, and another of the refined dwellings one has come to expect from the office of Delano & Aldrich,— this time the Egerton Winthrop house, Syosset, with an elaborate but delicately handled cornice. A clumsy pseudo-Italian church at St. Joseph, Mo., is also illustrated; along with a much over-ornamented half-timber house at Villa Nova.

Architecture for July exemplifies to the full the evils of duplication in architectural publication. Not one of the subjects illustrated is fresh material, all having been previously — and recently — published, including Schmidt, Garden & Martin's Paxton house, the Detroit Athletic Club, and Marcus T. Reynolds' Office Building at Albany. We note with surprise and interest the appearance in the text pages of a signed article by the gentle editor of that very exclusive Quarterly issued "in the interest of Harmony, Efficiency, and Economy in Building," by the "Hoggson Brothers." Considering these gentlemen's various endeavors to attract prospective builders through alluring advertising, often under persuasive head-lines similar to "Why Consult an Architect?" and their use of illustrations, omitting all credit to the architects, painters, or sculptors employed, it seems strange that the editor of a pseudo-architectural magazine could imagine that this sort of literary propaganda by the representative of so commercial a firm, flaunting itself outside the ethical bars maintained by the architectural profession, would make much of an appeal to his particular constituency!

The July *Western Architect* illustrates the work of a single firm, Purcell & Elmslie. Easily most interesting of their buildings is the Madison State Bank, which is obviously reminiscent of the master hand of Mr. Sullivan, further con-

(From "The Western Architect")



House for Edward W. Decker, Esq., Lake Minnetonka, Minn.
Purcell & Elmslie, Architects
(From "The Brickbuilder")



House for Charles Paxton, Esq., Lake Forest, Ill.
Schmidt, Garden & Martin, Architects
(From "The American Architect")



Dickerman School, Boston, Mass.
J. A. Schweinfurth, Architect
(From "The American Architect")



Detroit Athletic Club, Detroit, Mich.
Albert Kahn, Architect; Ernest Wilby, Associate

tinually recalled by pen-renderings throughout the number. The Edward W. Decker house at Lake Minnetonka (one wonders why an obviously summer dwelling is chosen for portrayal as an alien element in a wintry landscape) is reproduced at so small a scale that it suggests little more than the designers' unsuccessful struggle to adapt its emphasized horizontal lines to a site of irregular contour. A similarly futile effort, by the way, ended even less happily in the case of the "bungalow" arbitrarily deposited upon the Crane estate at Woods Hole, where it remains aggressively antagonistic to everything on the site and in its surrounding vicinity. Some details are attractively shown, though again — through defective reproduction — one is often left uncertain as to the exact character of their architectural design. One or two houses also indicate a new tendency in western "stylistic" design. This is most clearly manifested in the parsonage at Eau Claire, Wis., which is apparently evolved, with great economy of means, from a forty-five-degree triangle laid upon its longest base.

The Architectural Record for July is an effort to illustrate, in a memorial manner, the work of the late D. H. Burnham and his associates. Unfortunately, the presentation here visualized would seem to proclaim nothing else so strenuously as the absolute divorce of art from the practical problem presented by the American office building. Failing acceptance of this conclusion, the observer is forced to the alternative that this consistent disregard of all artistic considerations is merely inherent in the work of this particular designer. Such need not result from working with big problems, in which the late Mr. Burnham was regarded as a specialist, being one of the first, and perhaps the most successful, of the group of promoter-architects who have chosen to regard their profession almost exclusively from its commercial angle. It would have been a far more graceful architectural memorial to Mr. Burnham (besides giving the issue some value to its subscribers) had the publishers chosen to substitute for mere bulk and volume the selection — with editorial discrimination — of the *best* work produced

by the firms of which he had been a member. In such a treatment they might consistently have omitted nearly every building they have now reproduced - including all the early work of Burnham & Root, which, of course, appears now at rather a disadvantage. They could have retained the two or three Chicago Park Buildings, possibly the Washington Station and Post-Office, the Illinois Trust and Savings-Bank in Chicago, the libraries at Kenosha and Cincinnati, and the best two or three office buildings, such as the Edison, Chicago First National Bank, and Wanamaker structures; and they could have featured the several examples of city planning, the attractive Frisco Railway Terminal at New Orleans (illustrated in these columns now some years ago), and the Lehigh Valley Coal Building at Wilkesbarre, Pa. All such un-architectural examples of promoter-engineering as the Detroit Dime Savings-Bank and the Chicago Railway Exchange Building should have been omitted. Crow, Lewis & Wickenhoefer's Swimming-Pool for Miss Gould at Irvington, N. Y., and an over-pretentious week-end house at Ardsley, N. Y., are entirely lost in this inchoate mass of commercial engineering and the commonplace.

The Builder for June 25 prints some examples of Scottish architecture, showing the Glasgow Cross alterations; municipal buildings and libraries, and the Dundee Civic Center, by Mr. James Thomson. July 2 gives designs for the proposed Stepney Municipal Building and the Tottenham Vale Road School. Interiors of the late *S. S. Lusitania*, two churches, and two country houses are illustrated July 9; and, on July 16, some of the Johns Hopkins Buildings in Baltimore, the Royal Bank of Scotland in Bishopgate,

some Georgian interiors on the Cunarder *Aquitania*, by Mewès & Davis, and the scheme for the West China Union University in Chengtu, by Fred Rowntree & Son.

The English *Town Planning Review* for July, issued by the Department of Civic Design of the School of Architecture of the University of Liverpool, has been received. The principal articles deal with Housing and Town Planning in Canada,

scientific principles of orientation for public roads and dwellings, the actual situation of housing in the city of Berlin (perhaps somewhat colored by the present relations between England and Germany!), and the urban land problem as it is affected by town planning. The most important section, visually, deals with recent competitions, including the Vancouver Civic Center, the Bradford city improvement, a Doncaster suburb, a problem of Liverpool housing, and a cottage competition on the Bromboro' Port Estate, accompanied by many illustrations,— particularly of the Bradford problem, which we may later find an opportunity to reproduce.

Not least interesting among the developments of the war are those articles and editorials appearing in English architectural magazines based upon these new conditions. In part—as in the *Town Planning Review* editorial on “progress during war time”—they summarize effects that have resulted from the war. In other cases they have dealt more with theories or fears, as in one learned editorial endeavoring to show how the “Kultur” of the Germanic nations, as it has gained expression in Modern German Architecture, and particularly in *L'Art Nouveau*, displays the same qualities of barbarism as have appeared in that Nation's conduct of the war.

(From “The Builder,” London)



West China Union University, Chengtu
Fred Rowntree & Son, Architects

(From “The Builder,” London)



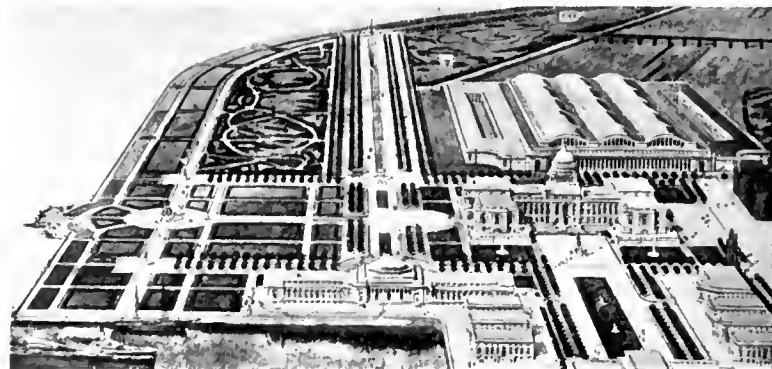
Central Reading-Rooms, Dundee
James Thomson, Architect
(From “The Builder,” London)



Training-College, Dundee
T. Martin Cappon, Architect
(From “The Builder,” London)



Civic Building



General View

Civic Center Scheme, Dundee
James Thomson, Architect

PUBLICATION OFFICE
144 CONGRESS STREET
BOSTON, MASS.

PUBLISHERS' DEPARTMENT

ADVERTISING OFFICE
440 FOURTH AVENUE
NEW YORK, N. Y.

ONE of the most interesting — and so far as it has gone — most completely developed workingmen's suburbs produced in Germany is the new "Margarethen Hohe" outside of Essen. Inasmuch as these workingmen's dwellings have their special applicability to problems in this country with which we are only beginning to concern ourselves; and as they further indicate perhaps the highest watermark that will have been achieved by Teutonic genius in this line for many years to come, we give space in this number to their representative illustration; showing the scheme both as it was originally projected for the entire layout of the plateau, and its actual development, so far as it was completed at the end of 1912. In plan, the buildings possess less interest than in the attempt that has been made to treat them along a consistent type of design; the arrangement in general having bathrooms opening from living-rooms and kitchens — a condition that is not permitted by the building laws in some sections of Germany, as in Bavaria — but that has here made possible an ingenious combination of the cooking and heating requirements of each family that probably makes for simplicity and economy in their living expense.

Our plates are given this month to showing both photographs and working drawings of Frank L. Packard's Putnam County Court-house; unusually successful — so far as the exterior is concerned — in its adaptation and use of a virile type of Italian Renaissance design. Inside the handling drifts more toward conventional French forms. Three plates and two text pages show the very attractive studies for some simple dwelling interiors made by Addison B. Le Boutillier, principally for an alteration to a small house in north-western New York State, — the water color studies furnish, indeed, particularly suggestive material for those draughtsmen interested in a method of rendering possessing all the merits of an exact working study; and at the same time they provide obvious visual appeal to the average client, — who is also often entirely incapable of realizing the appearance of a scheme from its customary arbitrary presentation, in elevation and plan.

This issue contains four more plates in the series of American Country Homes, at first supplying the interiors of the

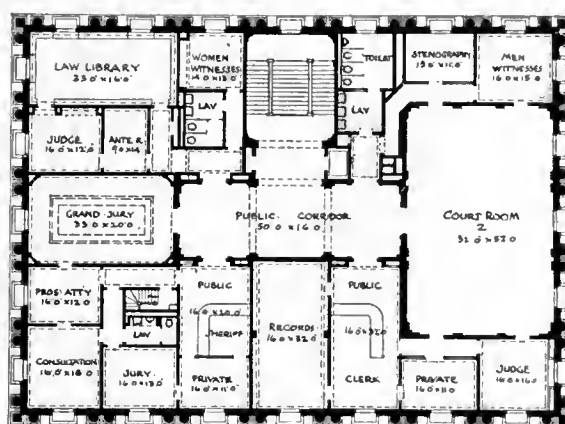
two houses shown in our last issue, — crowded out of that number to allow more plate examples of ledge stone architecture to be included, — and then adding a simple brick house of the English type of design in Newton, Mass., by Oscar A. Thayer, Architect.

In commemoration of September 15, the anniversary of the reoccupation of Reims during the German retirement after the Battle of the Marne, which was immediately followed by the wanton bombardment of that famous and beautiful architectural monument, the Cathedral, our editorial page this month expresses a definite and deeply felt — if still neutral! — point of view; in part called forth by the recent presumptuous German announcement of the appointment of the municipal architect of the city of Strassburg to have charge of "the rebuilding of Belgium"! Can it be that Germany is striving to carry out a consistent policy for the total obliteration of Belgium, its arts and architecture; even looking so far ahead as to provide this one final reason for causing American tourists of the future forever to avoid traveling through that section of Europe that already has been desecrated by its occupation by the German armies?

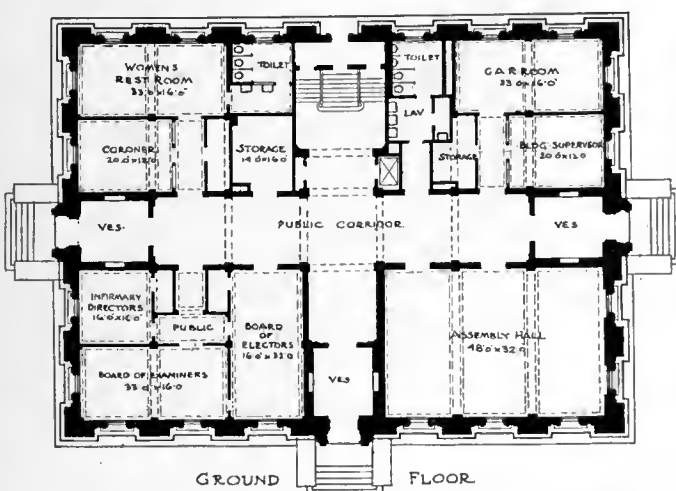
The line plates for October will be entirely given to reproducing McKim, Mead & White's working drawings for the monumental McKinley Birthplace Memorial at Niles, O. The October issue will also contain four English Country House plates, presenting the exteriors of a most unusual and distinctive country house, by Edward S. Prior, at Holt in Norfolk-shire, England; and other plates of American architecture continuing some of the Series already initiated in our plate pages. We would remind our subscribers that only ten plates remain to complete the 100 plates of Modern English Churches, and but twenty-six plates to complete the Series of English Country Houses. Of the Churches, the final ten plates will be given to showing the exterior and interior, including the new Chapels, in the late J. F. Bentley's Cathedral of Westminster in London. Photographs for these are now being especially taken for THE ARCHITECTURAL REVIEW, and we hope to be able to publish all of them before the end of the year. The selection of material in the English Country House Series is also substantially complete. The publication of the remaining plates will probably continue through the next ten or twelve issues, concluding about the middle of 1916.

Book Notes

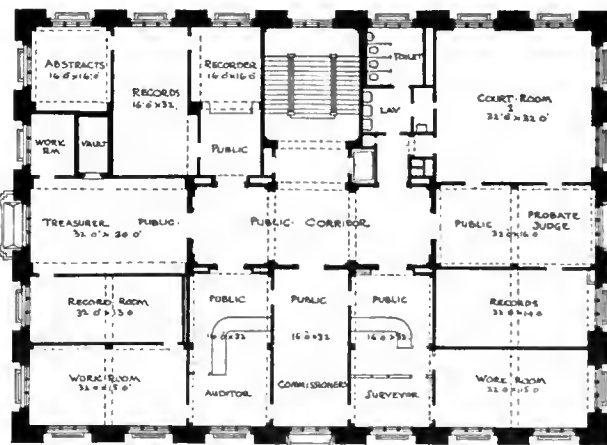
MARGARETHEN-HOHE BEI ESSEN. Edited by Alexander Koch, Darmstadt, 1913. 108 pages. 8 $\frac{3}{8}$ x 11 $\frac{3}{8}$ ". 10 marks. 237 reproductions from photographs, elevations, ground plans, sketches, and interiors; showing 160 houses, with gardens. A good idea of the character of this work is to be obtained from the illustrations accompanying our leading article this month. Besides these views, however, the volume contains a number of plans and elevations, interior views, and especially photographs illustrating the market place with its stalls, stores, and central fountain, which add considerably to its interest for all those concerned with the problems of dwelling and garden suburb design. The text contains a statement from the architect, George Metzendorf, and also from the superintendent in control of the business conduct of the foundation under which the development has been made; as well as a brief description of the history of the entire undertaking from its inception.



SECOND FLOOR



GROUND FLOOR



FIRST FLOOR

Floor Plans, Putnam County Court-House, Ottawa, O. Frank L. Packard, Architect; Ralph Snyder, Associate



DOORWAY,
ISAAC ROYALL HOUSE
at Medford, Massachusetts.
Built of White Pine in 1732.

While the Royall House as it now stands was built in 1732, a section of it—which was originally the Winthrop Farm House—was built in 1631. This is the oldest section of any house now standing in this country.

ARCHITECTS, carpenters and lumber men have for generations agreed that no other wood gives such long and satisfactory service, when exposed to the weather, as

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The second number of the White Pine Series of Architectural Monographs, published bi-monthly under the personal direction of Mr. Russell F. Whitehead, formerly editor of "The Architectural Record" and "The Brickbuilder," will be mailed October first. The subject will be "New England Colonial Houses of the Eighteenth Century," with text by Mr. Frank Chouteau Brown.

If you are not receiving the monographs, and you feel interested in having them, kindly advise Russell F. Whitehead, 132 Madison Avenue, New York City, who will be pleased to furnish you with the second and all subsequent numbers.

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The Architectural Review

Volume III (Old Series, Vol. XX)

September, 1915

Number 6

A German "Garden City" Suburb

Designed by George Metzendorf

Described by Frank Chouteau Brown

BARELY a year before the outbreak of the War, one of the very newest among these so-called "Garden City" experiments on the Continent had come to partial completion in Germany; although the idea of considering such a venture merely from an æsthetic or sociological point of view would probably never occur to the practical German mind, which prefers always a scientific outlook upon any problem. Neither does the canny German carelessly permit the label of "workingmen's houses" to be attached to any dwelling suburb, well knowing that many desirable classes of investors or renting families are likely to fight shy of a community so labeled. Nevertheless, the problem of providing healthful housing accommodations for mechanics, clerks, storekeepers, and other necessary inhabitants of the city group, at not too large a rental, is one which the German government has been especially desirous of properly solving; for by that means only can sufficient efficient and desirable material for its complicated and omnivorous war-machine be manufactured. So while—in this result—the utmost of emphasis is placed upon the matter of health, for mere efficiency's sake attention is paid as well to the practical living conveniences of the suburb, its relation to the larger community of which it is in many cases the outgrowth, and the convenience and practical arrangement of the individual dwellings of which the settlement is composed.

The essential difference between the German and the American view-point on this problem comes from the fact that in solving it the German attempts also to combine architectural merit with convenience. This applies to the layout of streets as well as to

the disposition of buildings, their individual plan and arrangement; whereas we in America are willing and accustomed to ignore this element in the problem, thereby in many cases making our solutions ineffective and unprofitable in more senses than one. Of course, all European dwelling suburbs are developed under much more economical conditions for the householder, because in Europe individuals of the lower class do not attempt to vie

with the wealthy aristocracy in the appearance, arrangement, or disposition of their dwellings; quite the opposite being the case in America. Therefore, being satisfied with minor dwellings of from three to six rooms, it is allowable to treat these dwellings externally in a manner appropriate to their size. It is largely this factor that makes it possible to provide such dwellings as are here shown at costs varying from 3,500 to 7,000 marks (\$845 to \$1,750) apiece, giving them at the same time all necessary elements of durability, appearance, and convenience.

The venture with which we are now particularly concerned has been developed just outside of Essen, where the principal factories of the Krupp Iron Works are located. The Krupp Iron Works was founded, a little over a hundred years ago, by Friedrich Krupp, who first started by occupying a small factory at Altenessen, a suburb of Essen—at that time a small town of less than four thousand inhabitants. Here Friedrich Krupp died in 1826, when forty years old, leaving his undeveloped business, his debts, and—his greatest asset—the secret of making crucible steel, to his widow and children. It may be noted, in passing, that this method of steel-making had been invented about one hundred and seventy-



Fig. 1. The Start of the Steilestrasse, seen through the Entrance Archway



Fig. 2. Group of Houses forming the Entrance Gateway, looking up the Street Ramp.

five years ago by an Englishman, Benjamin Huntsman. It was Frau Krupp — with her son Alfred, fourteen years of age when his father died — who began to develop the business; and it was only then that the fame of the works began to grow. Alfred Krupp became the genius of the firm, and it was he who, in 1847, cast the first gun of crucible steel. Cannon of cast-iron or bronze appeared, at this time, to have reached their limit of size. But by the time of the Franco-German War this first three-pounder gun had been so improved that the German successes were even then attributed to these new engines of war, and the fame of the Krupps continued to grow until Essen has now become one of the most important industrial centers in Europe, with a population of over 300,000; and the Krupp factory has by now spread over more than 500 acres and, at the beginning of the War, employed over 80,000 workmen. This number has by now been increased to 100,000 at least — and perhaps more; while the capital has recently been enlarged from \$45,000,000 to \$562,500,000 — the profit for the year 1914 being supposed to have been \$8,475,000.

These workshops have spread even beyond the old Essen establishment, which alone requires three million tons of coal annually. They now include the Friedrich-Alfred Iron Works

at Rheinhausen, the Annen Steel Works, the Gruson Machine Works at Magdenburg-Buckau, and the Germania Shipyards at Kiel, the last two establishments occupying some seventy-five and sixty acres of land apiece.

In connection with the growth of this tremendous industrial institution, the problem of caring for their workmen has also interested the founders — particularly in the last generations — as a social problem. Much had already been done in Essen by various bequests for comprehensively improving the community and its suburbs; but the inception of the particular settlement with which we are now concerned came directly from a sum of 1,000,000 marks (about \$250,000), given by Frau F. A. Krupp on the occasion of the marriage of her daughter Bertha, in 1906, in commemoration of the one-hundredth anniversary of the Krupp Works, to be used for the development of more healthful living conditions. It was made clear, however, that she did not wish to improve conditions for her own workmen alone, nor to conflict financially with previously existing rented property. Therefore the problem was to so expend this sum as to provide a rental return that would, in the average, remain about the same as was already customary, while obtaining the utmost of health and comfort conformable with the greatest



Fig. 3. Looking over Ravine towards the Bridge Head. Street Car Waiting Station in Foreground



Fig. 4. The Second Block of Houses inside the Gateway, right side of Steilestrasse



Fig. 5. Looking down Steilestrasse, opposite Rosenweg, rear of Gateway Group showing beyond



Fig. 6. Looking up Steilestrasse, showing the First Group of Houses inside the Gateway on the right

amount of permanency, and without disregarding æsthetic considerations.

In this way the new suburb, called "Margarethen-Höhe," was started. The development of the entire property has not yet been completed, although a scheme embodying its entire upbuilding has been laid out and determined in advance—a method common to continental but unfortunately foreign to American communities! On the plan the houses now built are shown in solid black, those planned for future development being indicated by hatched areas. The next move, from the practical German point of view, was consistently and completely to construct that section nearest and most convenient to the city of Essen—even to the building of every house or market, lamp-post or fountain, within that limited area; leaving the future development to extend naturally and normally beyond that section as the demand arose. This was, prac-



Fig. 7. Looking down Steilestrasse, corner of Winkelstrasse. A Four-house Group in the Foreground

tically and economically, a great improvement upon scattering house after house irregularly over the entire area, requiring large and expensive highway constructions, and sewer, gas, water, and electric main installations, instead of confining this expenditure entirely to a limited, and solidly built-up area.

The site to be developed was a more or less level plateau surrounded by fine wooded ravines, through one of which ran an iron carrying railroad and a waterway, these trafficways happening to occur on the side nearest to the city of Essen. This valley was therefore spanned by a simple, yet artistically successful, bridge, which not only carries the main roadway directly across to the suburb, but also serves to provide space for an electric road as well. This structure—in itself a somewhat large item of expense, costing 270,000 marks (\$54,000)—was taken care of by a separate fund, and will eventually be allotted over the en-

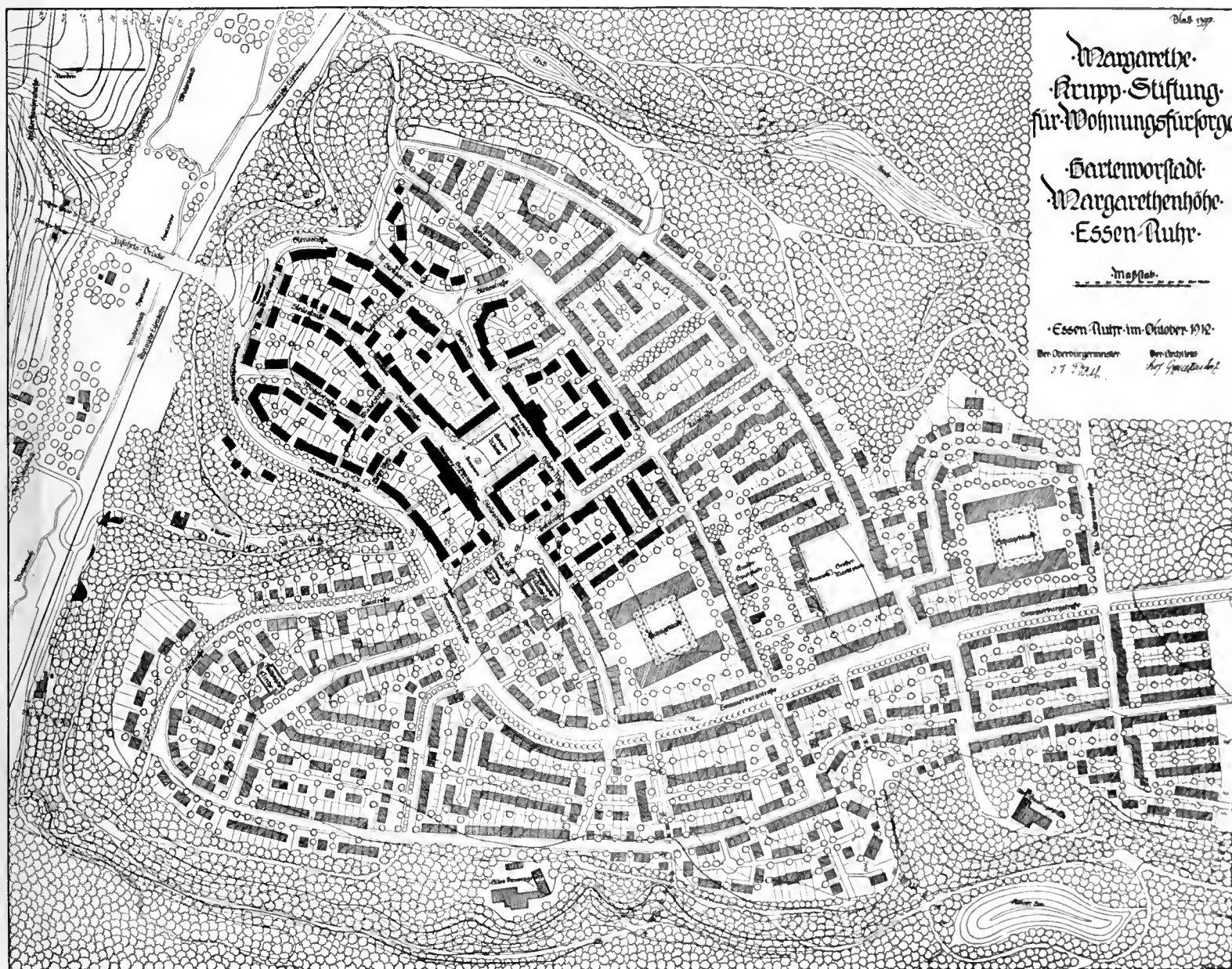


Fig. 8. Plan of the Suburb showing Arrangement as Laid Out and Constructed up to October, 1912



Fig. 9. Three-house Group fronting on Sommerburgstrasse, corner of Winkelstrasse



Fig. 10. A Group of Three Houses on Sommerburgstrasse facing across the Ravine.

tire suburb, to prevent its imposing too great a percentage of cost upon the smaller area first developed. A central market square — which is indeed the smaller and more subordinate market-place of the suburb — is included in the section already built; although this present description deals only with the dwelling portion of the development. Two sites for school-houses are also allotted, just outside the limits of the present improvements; as well as several church locations — all pre-determined in the general plan. It would perhaps have been easier to have located the public square directly opposite the bridge approach, as would certainly have been the case with any real-estate development undertaken in this country; but the German designer, George Metzendorf, recognized that the outlook over the valleys below obtainable around the perimeter of the suburb provided the most air and sun for the dwellers, both life and health giving elements which should be made the most of. Consequently, the edges of the plateau are crowded with dwelling-sites, leaving the interior for business development — again a matter of far-sighted common sense, as these stores and markets are intended to serve the members of



Fig. 11. Three-house Group, corner of Steilestrasse and Winkelstrasse, showing contrast between open and built up corner

this little community rather than the city beyond, and are therefore best located in the most central locations, convenient of access from all dwellings in the suburb.

The school sites were also allotted by a different method than we are accustomed to in America. Bearing in mind that these buildings are primarily intended for the use of children, a natural series of deductions should bring us to recognize the economy of placing these buildings *inside* of a block of houses — thereby accomplishing several purposes. Particularly it provides the children in that section with access to the playground and to the school without crossing a public traffic street; it combines the playground area provided for the children in that block with the school playground; the school building becomes a natural center of interest in the block, more or less of a clubhouse available by day for the women and by night for the men. It also places the school in a position of quiet and seclusion from dust and noise, — obviously highly advantageous for the conduct of its daily routine. Finally, it saves the wasteful building of many yards of unnecessary street surfacing and lineal feet of sewage and water improvements in front and around two sides



Fig. 12. Group of One-family Houses at the North End of Winkelstrasse



Fig. 13. Kitchen Gardens behind the Three-house Group shown in Fig. 10



Fig. 14. Three-house Group on Sommerburgstrasse, corner Niederweg



Fig. 15. Three-house Brick and Colored Plaster Block on Stensstrasse

of the school building — which returns no benefit to the community and adds an extra tax upon the price of all other more available building lots. All these arguments as to the advantage of such a school-building location are self-evident, and *yet* — how many school properties in the United States have been laid out and developed along these common-sense lines?

In deciding to locate dwellings, rather than an open market-place, at the end of the bridge connecting the new community with Essen, the designer was confronted with the problem of making the outlook on the bridge at that end sufficiently monumental to aesthetically accord with the monumental arches of the bridge structure. (It should here be noted that, instead of building the cheapest possible bridge of iron, — a natural product of the city of Essen itself! — the architect, and those developing the community, realized the superior aesthetic and practical advantages of a viaduct of sand-



Fig. 16. Four One-family Houses Located Inside the Block, between Steilestrasse and Stensstrasse

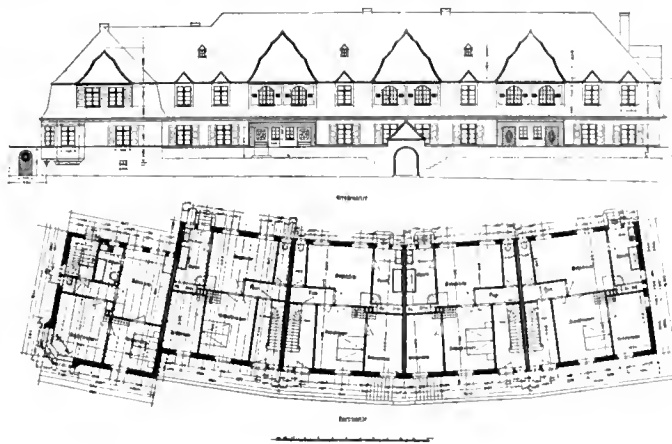


Fig. 17. Elevation and Plan of Five-house Group on Stensstrasse

stone, a natural rather than a human product of the site, and did not hesitate at its additional cost.) So this condition was met in several ways. First, by increasing the importance of the circumambulatory road which bounds the suburb near the edge of the plateau. Second, in bringing a winding roadway (Fig. 2) composed of ramps up to the higher street-level directly fronting upon the bridge, and swinging that

main street from its start on the bridge axes back and into the nearer market-place in the most convenient and direct fashion. Finally, by the very simple means of building a broad and spacious flight of steps, mounting easily from the bridge end to the imposing entrance archway (Fig. 1), from under which this street enters the dwelling-district beyond. The necessary monumental relationship between the community itself and the bridge is thus achieved at the same time as provision is also made for the greatest possible convenience of traffic



Fig. 18. Group of Three Double Houses on Stensstrasse opposite Rosenweg



Fig. 19. Five-house Group on Steilestrasse, beyond the Market Square

and foot passengers. Heavy teaming traffic is naturally deflected to either side, rising to the upper level by means of the street ramps, or continuing, on a still easier gradient (as does also the car-line), to the right, over the Sommerburgstrasse, so going on into the settlement along the easier outer route. On the Essen side the end of the bridge is marked by small street-car waiting-rooms (Fig. 3).

It is to be noted that traffic streets and architectural axes do not often fall together. This is intentional, as it allows of these axes being built out toward slightly natural outlooks. In the arrangement of the streets, the principal avenues run northeast and southwest (Fig. 8), leading toward the bridge head at one end; and, on account of the irregular contours and outlines of the plateau, even these principal streets are as irregular as is necessary to take full advantage of the site. By this means also would the street vistas be more interesting and varied—an effect further increased by the irregular disposition of the house groups in relation to the street line; or by breaking the vistas,—as at the intersection of the Talstrasse and the Steilestrasse,—in order to place the Evangelical Church site at the end of the latter highway, beyond which the Steilestrasse becomes of less traffic importance. This square before the church permits traffic to swing to right and left through the Talstrasse, and so reach other main streets, or to continue through the narrow roadway to the Sommerburgstrasse. Another distinct feature is the handling of the street corners, where almost invariably the corner is left vacant to provide a better outlook for all the adjoining houses, between which the corner land is divided (Fig. 11). This is especially the case on important traffic street intersections, where it was advisable to provide wider sight lines for safety of vehicles at these crossings. So, too, the principal streets cut the property into oblong building-blocks; in turn opened up by smaller streets and passageways requiring less expense to maintain, while permitting inner building in the more open blocks (Figs. 16 and 8); thus obtaining houses that possess both greater land area about them, with more seclusion and quiet, and at the same time making comfortable accommodations available at the very lowest possible rentals.

The architectural economy possible from building houses in rows has obviously been borne in mind throughout this development; and economy must always be important in a problem of this sort. Special attention has been given to the gardens—a weak point in many garden cities, varying



Fig. 20. Group of Eight Houses on the Corner of Stensstrasse Hoher Weg



Fig. 21. Group of Four Three-family Houses, Stensstrasse corner Rosenweg

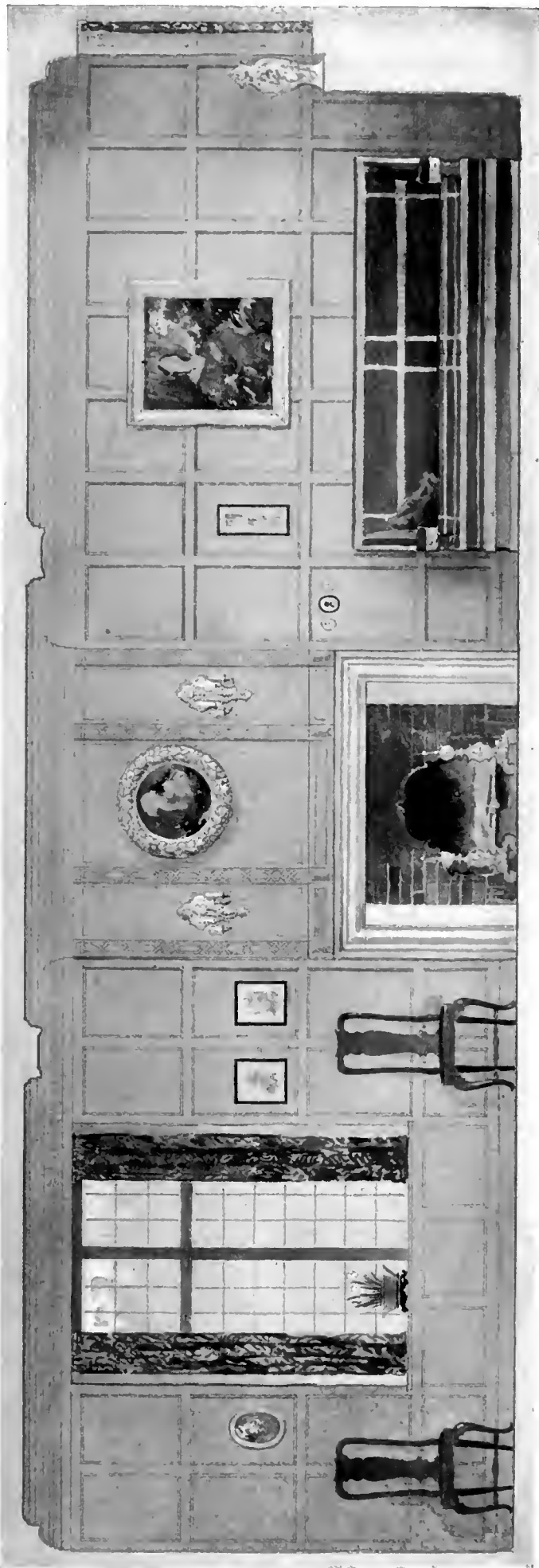
nine houses have thus far been built, including 160 one-family houses. There is a total of 266 dwellings provided, two being of six rooms, 112 of five rooms, 69 of four rooms, 81 of three rooms, and two of two rooms. Of the 266 dwellings, 81 have separate sleeping-rooms in porches or in the roofs; one to each of 77 dwellings, while four dwellings possess two of such rooms. All have a special scullery near the living kitchen, containing a hollow tiled oven, making a central heating-plant, and providing hot water for the bathing arrangements. The inhabitants now amount to about 1,300, of which about 45 per cent are employed in the Krupp works. The rental of the dwellings is regulated according to an agreement intended to keep them a little below the average

rates provided in the open market for similar conveniences. As at present managed, this means average rentals of 300 marks for the three room, 400 marks for the four room, and 480 marks for the five room dwellings; the three-room dwellings varying from 201 to 273 marks, the four rooms from 316 to 500 marks (the cheapest being a four-room apartment on the upper story; a single-family house running from 370 to 500 marks), and the five room from 420 to 532 marks. The average return to the Margarethe Krupp foundation, based on the first three building periods, has been 5 1/8 per cent. It is also understood that the settlement is intended principally for people having an income of about 3,000 marks—that social group being considered the most desirable tenants, and their applications being given a preference wherever possible.

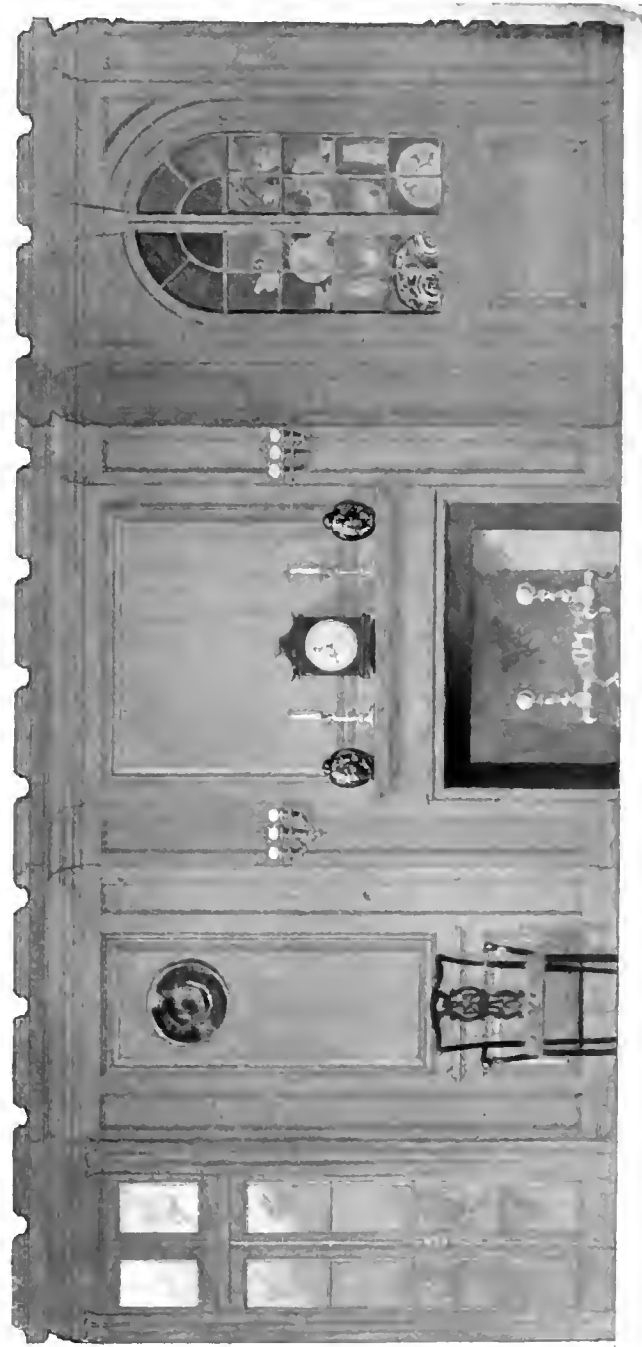
The illustrations show the outcome of Mr. Metzendorf's four-year task. Reviewing it but increases our regret for the reckless wastes of life, money, and time deflected from conserving civilization to its coldblooded destruction by those very means hitherto used in aiding world progress.



Fig. 22. Detail of Entrance Doorways of a One-family House Group



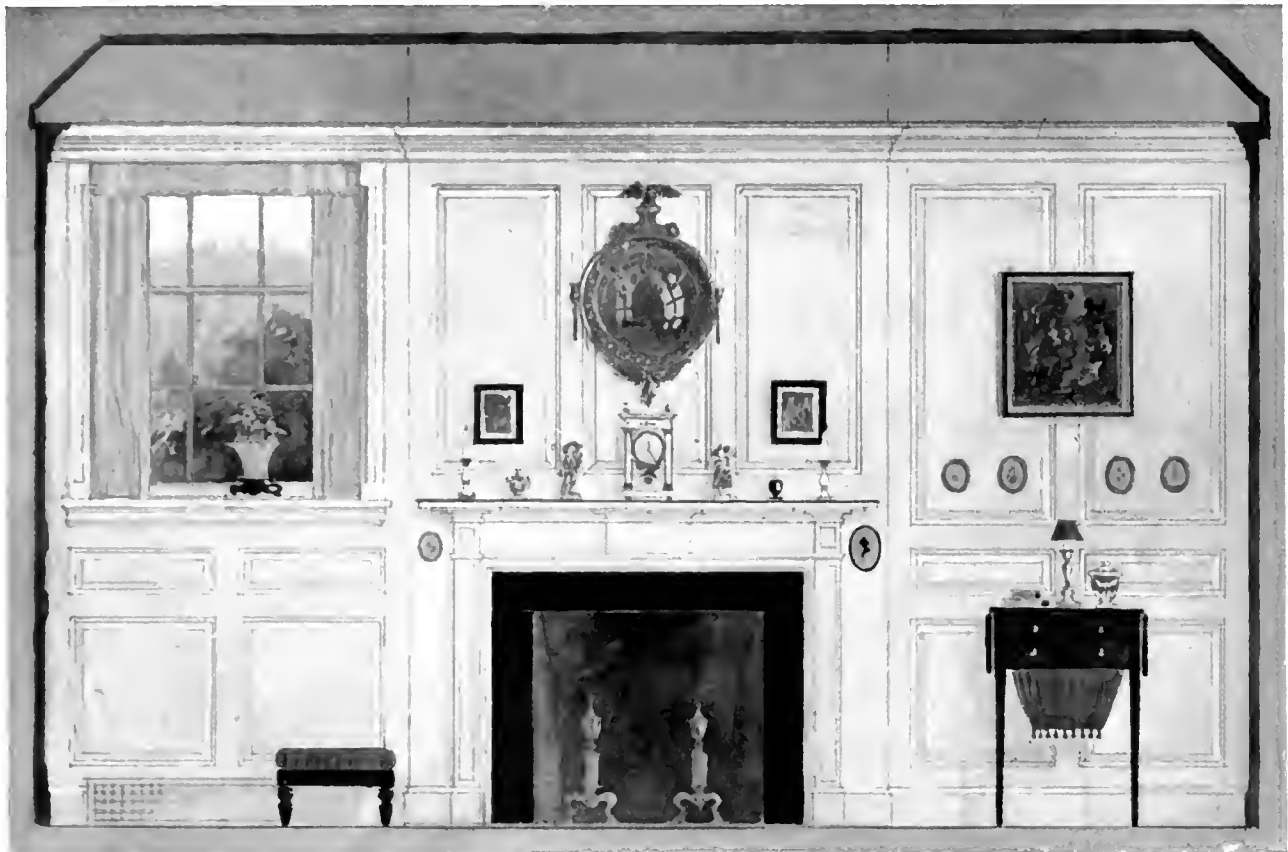
LIVING-ROOM



DINING-ROOM

Studies for Treatment
of Two Interiors
in the
House of
Mrs. M. McE. Bowden
Glens Falls, N. Y.

ADDISON B. LE BOUTILLIER
ARCHITECT



BEDROOM, HOUSE IN GLENS FALLS, N. Y.



STUDY FOR A LIBRARY FIREPLACE
ADDISON B. LE BOUTILLIER, ARCHITECT

The Architectural Review

New Series, Volume III, Number 6

Old Series, Volume XX, Number 6

SEPTEMBER, 1915

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PLATES

PLATES XLIX.—LIII.—PUTNAM COUNTY COURT-HOUSE, OTTAWA, OHIO (ELEVATIONS, SECTIONS, EXTERIOR AND INTERIOR DETAILS)—FRANK L. PACKARD, ARCHITECT; RALPH SNYDER, ASSOCIATE; E. F. BABBITT, ENGINEER.

PLATES LIV.—LVI.—INTERIORS OF HOUSE FOR MRS. M. MCE. BOWDEN, GLENS FALLS, N. Y. (SCALE DRAWINGS AND DETAILS)—ADDISON B. LE BOUTILLIER, ARCHITECT.

THE type of mind and morals that, month after month, rains shell and shrapnel on Reims Cathedral in only too efficient efforts to encompass its obliteration is just the type from which we should expect the adding to the irreparable injury of destruction the insult of an egregious "restoration." One would have supposed that the deed itself was sufficient without any gloss; but as the sinking of the *Lusitania* could not be allowed to pass in all its immortal horror without the jubulations of hyphenates and *junkers*, so the appalling devastations in the western war-area cannot be left alone, but must be subject to the threat of restoration by, and at the hands of, a cynical and dull-witted circle of Prussian bureaucrats and architects.

There is no reason why this sort of thing should not have been anticipated. For nearly fifty years what has been left us by war, riot, fanaticism, revolution, and the taste of the nineteenth century, has been subjected to a well-intentioned transformation, at the hands of a lot of singularly ignorant busybodies, that was even more destructive than all the other agencies put together. England, France, and Italy have vied with each other in a lamentable rivalry; while as for Germany, her work of the same nature began earlier and was even more banal in its results; but there was less in the Central Empires of supreme value, therefore the damage was not so great. For more than a generation the idea of restoration has been held in singular honor; somehow people seemed to think it was the right sort of thing to do when a community had reached a certain level of culture — and so it was; the only trouble being that the level was one that was reached by going down and not by going up.

There is reparation and there is restoration: the first is a duty that men owe to every work of art produced by their more able forebears and intelligently allowed to decay; the second is a procedure falling within the category of "those things no fellow can do," if it is not explicitly included in the prohibited "cruel and unusual punishments" of the fundamental law.

It is bad enough when a community restores its own buildings, — St. Georges de Bocherville, for instance, or St. Mark's, in Venice, or an English cathedral; — here at least, however, there may be some kinship of blood between restorers and creators, even though there is apt to be little else. What, then, shall we say when a *Hochwohlgeboren* reassures us with the promise that a *Herr Doktor Professor* from Brandenburg or Westphalia has been charged to see that everything is made all right again, and newer (and even better) than before, in Louvain or Malines,

in Ypres, Arras, or Reims? The thing is as unthinkable as Prussian *Ethik* or *Kultur*; and yet, like both, for our sins it exists, and there is hardly a day passes that we do not see some account of restoration and rebuilding, either begun or foretold, in those unhappy portions of Flanders and Brabant and Champagne, that are hidden from the sight of all save God and the angels by the curtain of smoke and poison-gases generated by Efficiency in its last extremity.

Apparently there is little America can do (the words "can do" are used in the sense of "permitted," "allowed") in the present crisis to pay for the much-needed lesson other nations are learning in agony and self-sacrifice; but there are two things at least that are possible. We can pour out our money in the aid of those that are suffering, and this we are doing to admiration. We can set our faces and raise our voices against the added infamy of Prussian restoration of any single devastated work of art in Belgium or France, and equally against actual restoration of any architectural or sculptural art that has been subjected to devastation, when these return into the custody of their own people, even though this were to be at the hands of the greatest those people could produce.

Reparation! — yes: the rebuilding of burned roofs, the setting of plain glass in the void tracery of ruined windows, the blocking up of gaping holes in walls and vaults and buttresses, — all the things that are necessary to make cathedral, church, or abbey reasonably stable and secure from the elements, to give it back to its emancipated though decimated congregation, and to fit it once more for public and private worship. Restoration! — no; in the sense in which the word has thus far been used. No towers or walls should be rebuilt, no sculpture replaced by modern substitutes or patched up by ingenious forgers, no carving duplicated from remaining fragments, no fake glass reset in the windows. For some years now we have been coming to realize that all this sort of thing is a particularly ignoble sham, and this will be a good time to put our convictions into practice.

There are two reasons for this: one that holds in the case of any really great but dilapidated work, one that grows out of the special conditions of the times. The first is that the whole temper of the world has so changed, the whole capacity of artists and craftsmen so fallen off during the last few centuries, that there is not a man living to-day who is capable of really restoring the smallest piece of art from any one of the monuments of the Middle Ages. The whole thing is a lost art, and no one now has any better business to attempt to duplicate Gothic art of any time, or to restore it to a physical wholeness, than he has to take the existing fragments of a drama by Sophocles or Euripides and fill up the *lacunæ* with material of his own devising. It never has been done, and it simply cannot be done; that is all there is about it.

The second reason is this. The War is the great lesson set for all men to learn — not a result of agencies set in motion by political, economic, or racial impulses, but the great warning that we have been making fools of ourselves and had better stop. Outside France there seems little evidence that the lesson is being learned, or will be learned during the progress of the War; therefore the concrete examples of what our folly has led to must remain as a dumb but unavoidable reminder. If it can possibly be compassed, every shattered and fire-swept city should remain in its desolation, new quarters being built up beyond the frontiers of ruin; and every church should bear, without and within, the unescapable evidences of what has transpired inside as well as around its walls. The Cloth Hall of Ypres neatly and plausibly rebuilt could be nothing but an evidence of our smug forgetfulness; Reims, with its lost statues and carvings and windows restored on the most approved modern lines, only a proof that in spite of the war we had learned nothing. Ypres in heaps of shattered masonry, with its single accusing pinnacle pointing heavenward in the midst; Reims, battered, fire-scarred, a mere mountain of raw masonry, standing sternly in its ring of ruined dwellings, would teach the unescapable lesson in a fashion that none could refuse; and in the end the enduring wrecks of the best that man can do will speak more eloquently than could the lost beauties we now sorrowfully deplore.

(From "The American Architect")



House on Beacon Street, Boston, Mass.
Little & Browne, Architects

AMONG several articles, *Architecture* for August contains one by the English artist, Leon V. Solon, about the ornamental use of tile, accompanied by sketches of suggestive value. Other short articles relate to the plate illustrations; but, of supreme importance, among them is a reprint of the circular that has recently been issued to the general public by the Iowa Chapter of the American Institute, intended to provide a guide to the selection of an architect — information that is much needed, and which should have been provided long ago by the American Institute itself. The plates show an interesting brick church at Great Neck, L. I., by Gustave E. Steinback, only to be criticized from a perhaps somewhat over-emphasized use of tile and brick inlay upon the exterior, and with what — in the photographs — appears to be a somewhat inappropriately contrasting severity

(From "Architecture")



St. Aloysius Church, Great Neck, L. I.
Gustave E. Steinback, Architect

Current Periodicals

A Review of the Recent American
And Foreign Architectural Publications

(From "The Brickbuilder")



Administration Bldg., Burke Relief Foundation, White Plains, N. Y.
McKim, Mead & White, Architects

(From "The Brickbuilder")



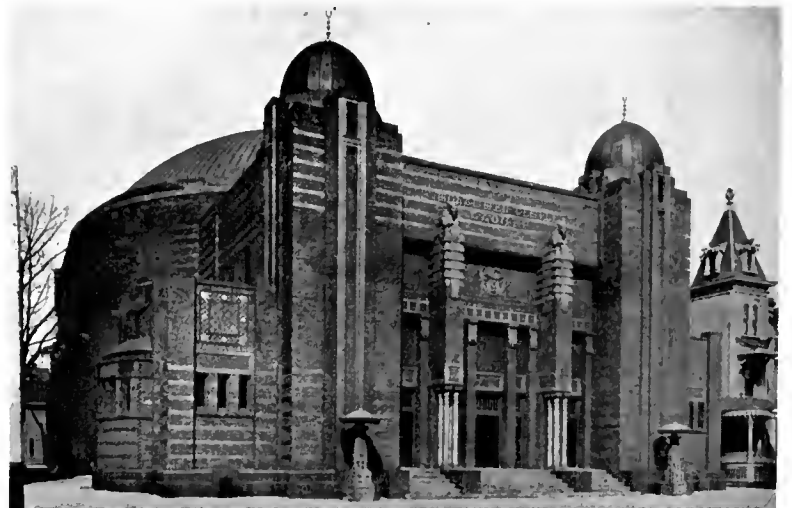
Dining-Hall and Service Building, White Plains, N. Y.
McKim, Mead & White, Architects

(From "Architecture")



Pennsylvania State Pavilion, Panama-Pacific Exposition, San Francisco, Cal.
Henry Hornbostel, Architect

(From "The Western Architect")



Mohammed Temple, Peoria, Ill.
Hewitt & Emerson, Architects

(From "Architecture")



Ryan Art Gallery, New York City
Carrère & Hastings, Architects

upon the interior. Crow, Lewis & Wickenhoefer, in the New York University Hall of Philosophy, have done a structure quite as beautifully Greek in refinement and restraint as McKim, Mead & White's two West Point buildings, from which it is frankly developed. Two New York office buildings, on West 40th and 45th Streets, by Starrett & Van Vleck and Wallis & Goodwillie, respectively, are illustrated; with views of the Mortimer Schiff garden at Oyster Bay, and Messrs. Carrère & Hastings' Palladian façade for the Ryan Art Gallery, which latter, despite its careful study, still retains some awkward relations in proportion, as in the over-wide entrance on the lower story. Mr. Barker's house for Mr. Holbrook, at Hartford, Conn., while containing much good detail, has yet a certain effect of uncouthness — in part derived from an endeavor to avoid firm or definite lines at the angles, and

(From "The Brickbuilder")



South Side Bath-House, Pittsburgh, Pa.
MacClure & Spahr, Architects

(From "The Brickbuilder")



Craig Apartments, Chicago, Ill.
Schmidt, Garden & Martin, Architects
(From "The Architectural Record")

(From "The Brickbuilder")



Kindergarten, Downers Grove, Ill.
Perkins, Fellows & Hamilton, Architects

in part from the disproportioned openings and their not altogether successful grouping in relation to each other. The result somewhat suggests that the view was taken from a small model rather than from the actual building. The Hall is more successful—if somewhat theatrical—from its over-emphasized color contrasts. Finally, another *tour de force* by Mr. Hornbostel is the colonnaded Pennsylvania State Pavilion at the Panama-Pacific Exposition.

The American Architect publishes, August 4, an article on the "Græco Roman Theater;" along with Mr. Arnold W. Brunner's Stadium for the College of the City of New York, a semicircular range of seats along a flattened arc, with a crowning colonnade which, at the center, very nearly impinges upon the plain backing wall; and on August 11, an article on "Wrought-Iron Work," with a Beacon Street house by Little & Browne, the exterior a dignified design evidently expressed with a simplicity imposed by the chosen material, granite—the interiors being in the most ornate and florid types of late English, French, and Adam design. A Washington club and house by Mr. Totten are also reproduced.

An article dealing with Michelozzi appears August 18, and the plates are given to student work from the Harvard School of Architecture, unmistakably reflecting the influence of Mr. Platt, Carrère & Hastings, and other strong personalities. Mr. Laurence Fowler's plaster house at Guilford, Md., proves less interesting in design than has been promised by his previous work.

The issue of August 25 contains a number of houses, and an article by the Wisconsin State Building Inspector on Building Regulation. Messrs. Bates & How have contributed a well-done brick and timber dwelling, and Dühring, Okie & Ziegler an interesting use of rough ledge-

stone (both of which we reproduce). Others, of less originality and character, too closely copying work by Mr. Platt, are by Reginald D. Johnson and Mann & MacNeille. Mr. Johnson's McWilliams House expresses, besides, a delicate and more original treatment of the entrance and pergola features.

The August *Architectural Record* publishes a house at Peapack, N. J., by Hewitt & Bottomley, where the cottage-like simplicity of the exterior hardly prepares one for the elaborate English paneled and plaster ceilinged interiors. Among the illustrated Country Clubs are Mellor & Meigs' alteration for the Pickering Hunt; McKim, Mead & White's old Germantown Cricket Club; Guy Lowell's Piping Rock House; Howard Shaw's Country Club at Glencoe; and Marshall & Fox's Club at Fort Sheridan, Ill.,—all familiar from many previous illustrations, the only new material being the Bellereive Club at St. Louis (overloaded with more architectural details than we have ever seen in one two-storied porch before!), and Hill & Woltersdorf's Edgewater Golf Club, the latter successful except for its somewhat thin half-timber and tilted Chinese eaves effect. Some good industrial buildings by George C. Nimmons are reproduced, among which are the entrance and tower of the Kimball Building in Chicago and the study for a Sears, Roebuck Plant at Seattle. Several Philadelphia doorways, — mis-titled as "Colonial," — an article on "Lighting of Museum Galleries," and two Southern Bank Buildings fill out the issue.

The Brickbuilder for July publishes some stairways, mostly Colonial in type; a small cottage on Long Island; photographs of McKim, Mead & White's buildings for the Burke Relief Foundation at White Plains — already otherwise illustrated; a brick Chicago apartment-house by Schmidt, Garden & Mar-



Entrance, Reid, Murdock & Co. Bldg., Chicago, Ill.
George C. Nimmons, Architect
(From "The Western Architect")



Lewis Cigar Company's Building, Peoria, Ill.
Hewitt & Emerson, Architects
(From "The Architectural Record")



Kimball Building, Chicago, Ill.
George C. Nimmons, Architect

(From "Architecture")



House for Dwight C. Holbrook, Esq., Hartford, Conn.
Russell F. Barker, Architect

(From "The American Architect")



Houses at Laurence Park, Bronxville, N. Y.
Bates & How, Architects

(From "The American Architect")



House for W. T. Harris, Esq., Villa Nova, Pa.
Dühring, Okie & Ziegler, Architects

tin; a bath-house at Pittsburgh, by MacClure & Spahr; and a kindergarten at Downers Grove, Ill., by Perkins, Fellows & Hamilton, details or views of most of which we reproduce. Continuations of the usual articles reappear in this issue.

The Western Architect for August publishes an interesting brick temple at Peoria, Ill., and also a well-designed factory, both by Hewitt & Emerson. The former provides an excellent stylistic contrast to Mr. Steinback's church. A banking building at Pueblo, Col., by Schmidt, Garden & Martin, successfully combines classical Renaissance proportions and composition with Sullivanesque detail, with interiors that must possess all the color charm and decorative treatment of some of Mr. Garden's smaller interiors in Chicago that can be recalled.

The August English *Architectural Review* continues its series on "War Monuments," the fifth part dealing with Modern French designs; along with Martin Shaw Briggs' series of articles on the "Later Italian Architects," describing the works of Galeazzo Alessi. Several pages are given to pictures of the Panama-Pacific Exposition Buildings; and the section of Current Architecture illustrates Mr. Leonard Stokes' new North Court for Emmanuel College, at Cambridge.

The Builder reproduces some rather conventional and old-fashioned English work, by the late Philip Webb, R. Norman Shaw, and J. B. Dunn, on July 23, including the latter's restoration of Mr. Shaw's Haggerston Castle, a detail of which we reprint; July 30 contains student work from the University College School of Architecture, including proposed reconstruction

schemes for Waterloo, Victoria, and Kings Cross Stations. August 6 gives some impressions of modern Budapest, some work by

timbered and stone-roofed exterior by Mr. Guilford W. Dudley, with reproductions of some of McKim, Mead & White's Burke Relief Foundation Buildings and the elevation drawings and perspective of a typical British store building on a London street by E. K. Purchase.

Whether as a result of the war or not, recent English architectural publications appear to possess rather a slight amount of interesting material,—which accounts for the small proportion of illustrative examples that have been called for in this and our preceding issue. The reproduction of continental architecture, particularly in the German magazines, seems also to have correspondingly suffered—which was the probable reason for *The Western Architect* so suddenly abandoning its special department of foreign survey of architectural magazine publications, which promised to be so interesting when inaugurated a year or more ago. Among the most suggestive material contained in these pages, in older issues of *THE ARCHITECTURAL REVIEW*, was that portion found in the continental architectural publications; therefore this loss is an incidental and unfortunate result of the war that is likely to be reflected for a long period after it has ended.

(From "The Builder," London)



Lloyd's Bank, Hull, England
John Bilson, Architect

(From "The Architectural Review," London)



New North Court, Emmanuel College, Cambridge, England
Leonard Stokes, Architect

(From "The Builder," London)



Haggerston Castle, Northumberland
James B. Dunn, Architect

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ARCHITECTURE does not alone consist in designing, and drawing plans for, the construction of a building. Fundamentally, its relation to life is far broader than this; a fact that those concerned with its practice too often forget. Fortunately, the last few years have seen an awakening of interest, both within and without the profession, in problems of such larger scope as City Planning, that tend to develop the architect's realization of this broader outlook; but even broader still is his relation to the social ethics of his time, and in presenting in this issue an article intended to express these fundamental relations, less from the point of view perhaps of the architect than of the ordinary citizen, we hope we are performing even a greater service to the profession than in maintaining the customary professional point of view, with which we fear our readers may be getting a wee bit surfeited at times! Its author, Mr. Wallis, is well known to the architectural profession; first, from his earlier books of drawings of Colonial architecture, and, later, from his own architectural designs and from his published books on architectural subjects, "How To Know Architecture," and "The A B C of Architecture." As the designer of Nela Park, at Cleveland, the monumental factory group of the National Electric Lamp Association, he has recently had to do with exactly those subjects handled in this article; while as Honorary Member of the Illuminating Engineering Society of London, a Director of the Illuminating Engineering Society of New York, and Chairman of the Committee on Factories of the American Museum of Safety, he has had every opportunity to study this topic from other and wider angles.

If our individual subscribers and readers agree with the logic of the facts here set forth, we hope they will aid in bringing this particular article to the attention of those of their clients and acquaintances outside the profession that they believe should be interested in the statements here set forth. For those subscribers who desire, we will be glad to send this number, with the article marked, direct to those whose names and addresses they may give us. Besides selecting a few choice examples typical of the sort of thing that has in the past been—or is being—perpetrated, we have chosen from both the American and the European field examples of straightforward, modern architectural solutions of the commercial factory problem to illustrate the practice of architecture as a "live art." Some illustrations pertinent to our principal article this month have overflowed into the supplemental plate section, where, of importance, they well belong.

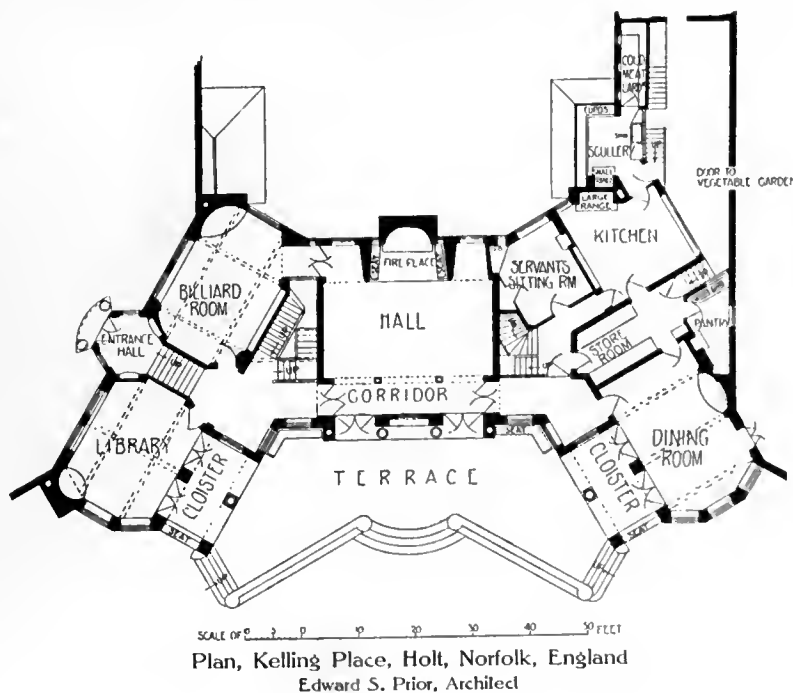
The plates selected for publication in this issue, reproducing McKim, Mead & White's working drawings for the McKinley Birthplace Memorial Building, at Niles, Ohio, are typical of the consistency and care with which this firm's competitive designs are further painstakingly developed and restudied before construction is actually allowed to be begun. Almost alone among American firms, they have always realized that the problem of designing for a competition is entirely separate from the problem of designing a building to meet a known set of actual conditions; and once having solved the competition problem, and won the award, they have never been dismayed or deterred by the additional expense, from re-designing the building to fit it finally for its actual purpose,—a labor that no conscientious architect can avoid after drawing a commission from that professional "shell game," the architectural competition!

England has its own particular equivalent of the new movement in architecture, which has expressed itself on the Continent in "Art Nouveau," and in America by what we commonly understand as referred to by "The Chicago School." We have already shown in our series of English Churches, as in Kempey Church, in Gloucestershire, the expression in ecclesiastical architecture this modern movement has assumed in England. In this issue we present an illustration of an unusually consistent example as it has been evolved in an English country house. Whether or not we approve of this type of architectural design, as it has expressed itself on these exteriors, we believe with much more conviction that no American architect, no matter how conservative, but must regard with approval the interiors of this same dwelling—the major por-

tion of which will appear in the English plate section of our November issue. Meanwhile, the exterior contains its individual lesson in the fresh, untrammelled, unhistoric use of native material, even the plan consistently expressing its divorce from conventional precedent. Therefore we do not hesitate to include this example in our series of supplemental plates, and to request for it the consideration that we believe it deserves.

Our November issue will be of unusual value. The plates will show the interior views of Kelling Place, Holt, Norfolk, England, in the English Country House Series; the working drawings and photographs of the second in the series of Small American Dwellings we have chosen to illustrate both by photographs and working drawings, by Charles Barton Keen; the working drawings and photographs of the Spencer Trask Memorial, at Saratoga, N. Y., by Henry Bacon and D. C. French, and a series of photographs of an exceptionally distinctive and individual American dwelling and garden at Charles River Village, Mass., which, along with another unusual house, in Framingham, will appear either in the November or December issue. The new academic building at Exeter, N. H., built along the lines of an earlier Colonial structure destroyed by fire, from a design by Cram & Ferguson, will also be illustrated by photographs and reproductions from the architects' working drawings in an early issue.

The text pages will contain several short articles, the first showing a charmingly informal and attractive Renaissance Villa near Rome, with sketch plan and photographs by Charles A. Platt, of unusual interest as a successful solution of the problem presented by the development of a long, narrow strip of land; a second short review article, commenting upon a new and unusual source of decorative elements of architectural embellishment that will, we believe, appeal with particular force to our younger readers, and to draughtsmen, of whom we also had special thought when including a third article, dealing in a practical and illuminating way with the problem of architectural rendering, approached from the beginner's point of view, and using, to point the moral, a set of six exceptionally beautiful architectural pen drawings by Mr. F. L. Griggs, the English master of this medium. These drawings express architectural subjects and their structural materials, with their natural accessories, by a great simplicity of technical means that makes their presentation unusually valuable in the suggestion of the fundamentals of architectural pen drawing.





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The third number of the White Pine Series of Architectural Monographs, published bi-monthly under the personal direction of Mr. Russell F. Whitehead, formerly editor of "The Architectural Record" and "The Brickbuilder," will be mailed December first. The subject will be "The Domestic Architecture Developed by the Dutch in Their Colony of New Netherlands," with text by Mr. Aymar Embury, II.

If you are not receiving the monographs, and you feel interested in having them, kindly advise Russell F. Whitehead, 132 Madison Avenue, New York City, who will be pleased to furnish you with the third and all subsequent numbers.

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The Architectural Review

Volume III (Old Series, Vol. XX)

October, 1915

Number 7

Is American Architecture a Live Art?

Does It Stand the Factory Test?

By Frank E. Wallis

IS architecture a live art or only a pedantic profession?

This is the most important question the architect can ask himself. No strength of assertion or vociferation will decide the answer. "By their fruits ye shall know them." Let us get outside of ourselves and view those fruits as the public does, for, after all, the public is our arbiter.

Yes, the public is our arbiter. *We* may know that the expressions of the architect are as common and frequent in the lives of all as the most ordinary every-day necessity. We may realize clearly that in a very large sense the architect is the most important man in public life; that the rules and laws under which the architect works are borrowed by those others who design the texture of our clothing, of our satins and silks, the china and glass on our sideboards, and, indeed, the very sideboard itself; that our furniture, wall-papers, tapestries and hangings, rugs, bric-à-brac and picture-frames are subordinate to and children of architecture, this great mother of civilization. We may croon to ourselves that our avenues are avenues only because of the architecture of their boundaries, and that the tradition and folklore of the past are limned and lined in these same streets and avenues by the architect, the true and enduring historian of our times and of the ancient traditions of the race. And we may assert that public morals and manners are affected by the work of the architect, and that the public, being surrounded by our work, cannot escape being affected by it.

But such ruminations are idle in the closet unless they there arouse the determination to get them stamped as convictions in the market-place. If true, as Stevenson said, that it takes two men to tell the truth, one to speak it, and one to

hear it, how can we architects speak the truth on our relation to the public when we speak only to ourselves. Could Mansfield have elevated the public by his art if he had played always behind the asbestos curtain? What reck it that we know our own importance unless we are willing to stand under the responsibilities which it brings! Otherwise, by reciting such paragraphs as the preceding, we are merely inducing auto-hypnosis,—singing ourselves to sleep with our own lullabies.

And the ultimate result? Well, in the Greek and Roman times, the architect was honored and monuments were erected to his memory; but during the Renaissance he frequently ate his dinner with the cook in the kitchen while creating those marvels which to-day bear the name of the reigning king for whom the cook was composing his concoctions. History does n't always repeat itself, but it has done so an uncanny number of times.

"Is architecture a live art or only a pedantic profession," therefore, assumes the proportions of a question of overshadowing importance. To answer it satisfactorily, we must first of all catechize ourselves fearlessly. Do we realize the unique position which we as architects hold in civilization? Do we recognize the fact that our work affects the habits of all those who rub elbows with it, and that this includes the whole body politic? Knowing this, do we appreciate our true responsibilities in public life, in the improvement of economic conditions, and in the development of everything that affects the progress of civilization?

When we shall have faced these questions fearlessly, then we shall be in a fair way toward rendering architecture a live art. But only on the way—for we must then face the responsibility



Turbine Factory, Berlin. Prof. Peter Behrens, Architect
A new factory type for a new type of engine



Cement and Chalk Industry Building, Berlin. Prof. Bruno Möhring, Architect
Gothic principles successfully applied to a commercial problem

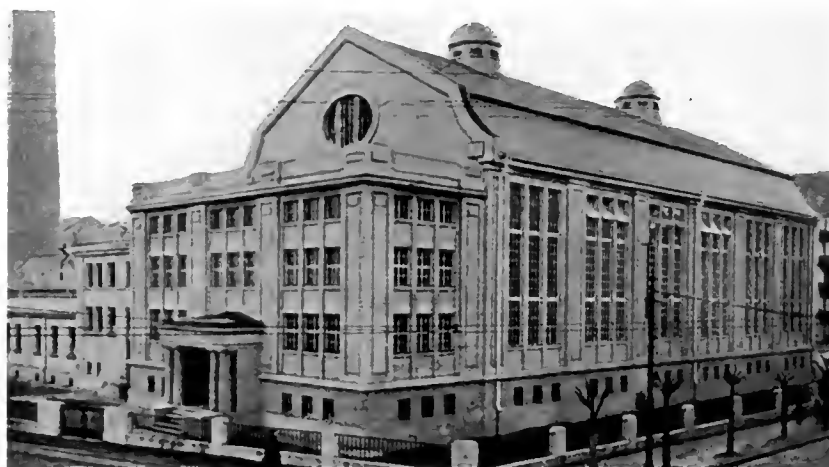
of getting our story across the footlights. Does the public know that its desires can be satisfied by coöperation with the architect? Not unless we get our story over to it! And unless the public *does* know this, architecture is not a live art. Must the architect wear kids and a tall hat in mixing with his own public? or will he inject his live art into the common and ordinary things of life, go back to his place as a live member of the every-day people, and interest himself in the most ordinary building requirements? In short, will the architect again coöperate with the public and use his red blood as Hunt and Richardson did?

These are the important questions, for, without them, realization of our responsibilities to civilization goes for naught. The burden of proof is placed on our shoulders; *we* must get our story across to the public.

If we had previously met this condition squarely, if the public already realized that it owes its necessities and luxuries to the architect and his associates,—in short, if we had got our story across,—then how much more truly and more vastly would ours be a live art to-day! If we had insisted, as we designed our problems, on their vital relation to the community, on the psychological effect of our work not only upon the client but upon every passer-by, then would not our clients, through sheer re-



Lace Curtain Bleachery. Prof. William Lossow and Max Hans Kühne, Architects
A factory where the human unit is granted more individuality than the machine



Machine and Power House, Electric Works, Strassburg. Reg. Baumstr. Löwe, Archt.
A building that architecturally expresses its purpose



Linoleum Drying-House, Bremen. H. Stoffregen, Architect
An expressive and well-composed piece of architecture



Head Bldg. for Ludwig Loewe & Co., Berlin. Prof. Alfred Grenander, Archt.
A factory that appeals to the personal pride of its employees



Car-Barn, Electric Railway, Berlin. Prof. Alfred Grenander, Architect
Even the street-car barn may not be an architectural parish

spect and admiration, have refrained from attempting to "butt-in" and dictate to us?

Then every client would have considered not only his own individual desires, but the rights of the public, as the Parisian insisted they should be considered when opposing the erection of bill-boards in Paris.

"This is my city, I own it, its façades and its skyline; for I live here, I walk, sit, and do business here; and no man has the right for his private profit to ruin my city and make it an uncomfortable and unhappy place for me. I object to rot, and I will not submit to it."

If we had thus made our architecture publicly *accepted* as a live art, the dickie fronts, the raw and unsightly brick back-sides, and the tank sky-lines of New York would never have been perpetrated. A public realization of public ownership of everything

within the vision means better things than these. In schools, where we have approximated our heritage, it is realized that the architectural color and form of the school buildings are great aids in helping the pedagogue to teach the youngsters to shoot straight. But churches and hotel rotundas, department-stores and shops, also will speed the public on its downward path or hold it on its hind legs, according to the merit or demerit of their architectural treatment.

This is only a rough glimpse of our field. We are a long way

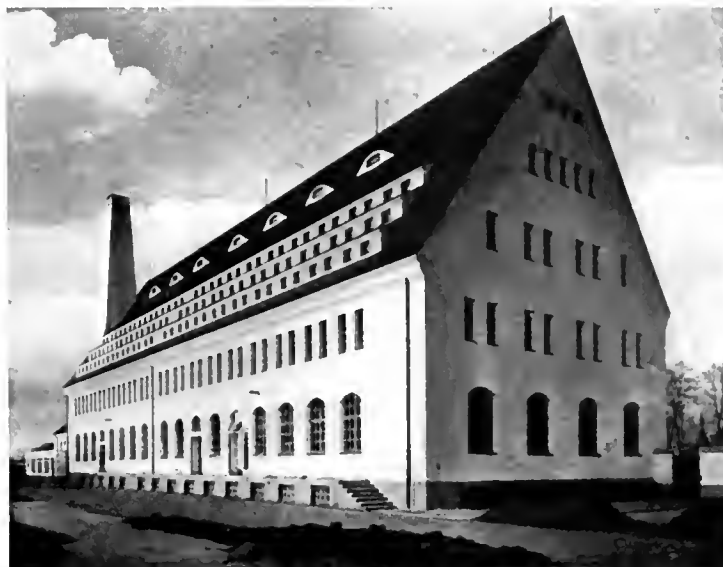
yet from getting architecture accepted as a live art. Let us examine ourselves on one specific class of buildings,— factories.

Will the architect design factories, or will he leave them to the tender mercies of the reinforced concrete engineers? And when he does receive the commission, will the architect design factories and industrial plants from his library and his historic styles, or from the live necessities of his times?

Yes; factories must also be brought into the class of the Fine Arts, and thus share in bringing architecture into the class of the live arts. I can hear the sniffs and see the eyebrows going up. "A work of art, you say?" Why not? I do not ask for a factory that looks like the Parthenon or Notre Dame. If it did, it would not be a good architectural expression of the factory problem. But why can't it be well designed, with due consideration for color and form, and still be a factory, look like a factory, and work like a factory?

You say that the manufacturing layman does not accept the truth that well-designed factory buildings increase the industrial output of the human machines housed therein? Let us set aside the *layman* for a minute. Has the *architect*, who receives the commissions—not *pays* them—fully appreciated this vital fact? Without a doubt he has *not*!

This, however, can be



Tallow Factory and Tin Storehouse, Dresden. Hans Erlwein, Architect
Neither individuality nor spaciousness were sacrificed in this commercial problem

shoe factory as an architectural problem? Is it because it is less spectacular than court-houses, cathedrals, or mansions? If so, is it not of equal importance?

Are civic centers of so much more importance to the throbbing busy life of America than industrial centers that we architects

should flock to the aid of the one and hold aloof from the other? Are the civic-center specialists to continue with their standardized rectangular plan—colonnades, statues, and bay trees—and ignore that far more important, though less spectacular, question, the designing of industrial centers? Yes, industrial centers; not housing centers, but architectonic layouts of factory buildings such as the one that is now be-

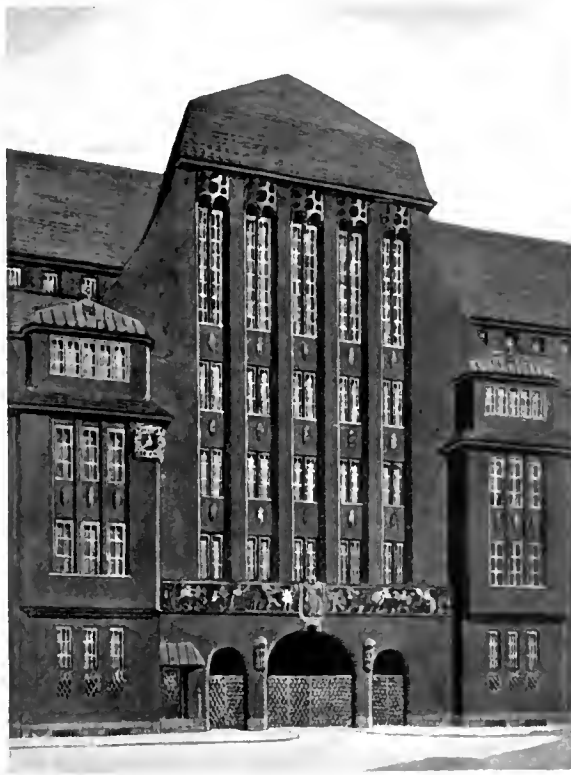


Market Building, Munich. Richard Schachner, Architect

How a similar grouping of buildings has been handled in America is illustrated by the Bush Terminal at Brooklyn



Warehouse Façade, Berlin. E. Olszewski, Archt.



Pastry Bakehouse and Factory, Hanover. K. Siebrecht, Archt.



Factory Bldg., Berlin. Alexander Weisz, Archt.

Three German city warehouse-factory problems treated with individuality, freedom of style, and architectural interest

ing developed in Minneapolis by the Minneapolis Industrial Association,—where efficiency in design, in building, and in human and freight transportation are being considered by the proper kind of experts.

Seen from an engineering standpoint, is it more difficult, or less so, to design a Lincoln Memorial such as Bacon is doing in Washington, to create that intricate complication of steam, steel, clay, electricity, and Gothic that we see in the Woolworth Building, or to assemble the various parts which go to make our great industrial plants?

While the layman-manufacturer may be at sea because he has not yet accepted the economic value of color and form, still we as architects are to blame for our neglect to attend to his problems. If ours is to be a *live art*, we must show this to the manufacturer. We must make him realize that the art of building embraces proportions, color, and form *in addition to* the allied specialties such as heating, lighting, ventilation, etc. Let us consider how we can convince him of his *financial* interest in this realization.

The greatest asset of any factory organization, in securing quantity and quality of product at low cost per unit, is *esprit de corps*. The germ of the mass enthusiasm known as *esprit de corps* is proper personal pride in the individual. In securing this the architect preaches a more enduring and continuous gospel than do most of the church and Sunday-school workers, for he deals with those things of this life which suggest a cleaner body, an eye-pleasing garb, and a perfect pride. Does true harmony of color and perfect proportion in form appreciate or depreciate the personal pride? And is not personal pride the base on which all good works and great efforts are built? Is it not in very truth the germ of this *esprit de corps*? But how seldom is any thought given to the personal pride or spirit of factory operatives? How little consideration is given to the effect their architectural environment produces!

Factories which have been built with a keener knowledge of the financial value of good architecture have a tremendous

influence, not only on the profits, but on the factory worker and upon the pride of all those who are affected by its neighborhood. But because this effect on increased output power with less strain is not immediately apparent to the superintendent, or to the manufacturer, he spends his time complaining of apparent additions to his cost of production.

He rails at artists in general and at architects in particular. He has been to several musical comedies, so he knows that they all wear long hair and loose, corduroy trousers. He has read the yellow journals, and he knows that they are uncertain and undependable. He will have none of them. So factories are built from the plans of an unimaginative and colorless engineer—or from those of the superintendent.

Then it is to laugh. It is always the spoiling of a first-class superintendent to make him a poor architect. The result will always be a series of concrete or brick piers and beams, roofs and floors, to house the shop where products are made for a market as quickly as possible and as cheaply as may be, without any thought being given to that powerful instinct of race which insists upon preening itself in the sun, or burgeons under the influence of color, and strives always to retain its personal pride. The satisfaction of this instinct *must* result in increased effort from the individual, and in increased profits for the manufacturer. And what is the factory for but that?

Why is it that the business man who scoffs at the need of good architecture in his factory, and flouts the idea that it is good for the soul of his operative, himself snuggles under the influence of architecture, sculpture, and painting as soon as his bank account allows him to do so? We recognize the growth of our millionaires by their picture-buying periods, their palace-building expressions, and by the exhibition of good sculpture in their gardens—which has materially reduced the sale of cast-iron dogs and deer. We know that Italy and France have immense incomes from exhibiting their art works—and we know who pays. It is these same Americans who



Factory of Henry Hope, Birmingham, England
A simple problem in piers and wall openings; designed by an architect, not an engineer



Storehouse, Edinburgh, Scotland. T. P. Marwick, Architect
A modern storehouse as an English architect has seen it



New Kodak Bldg., London. J. J. Burnet, Archt.
A commercial city building in concrete



Factory for "Kynoch," Ltd. Cousins, Peacock & Bewlay
The smaller factory and office, built of brick



Concrete Factory, London. G. F. Collenson, Archt.
A cement printing establishment

will not use art on *this* side of the Atlantic. This self-same controller of fate, the manufacturer, trundles his car, his wife, his daughter, and a few letters of credit to Europe so that he may visit the art galleries and gape before the great architectural monuments and cathedrals. He digests his Joane or his Baedeker so that he may not miss any of the examples which these very same long-haired, irresponsible dam-phools have created. That the creator of permanent and enduring expression of the big things of life can be also irresponsible and undependable may seem highly amusing to us.

But let us not be so highly amused that we miss the serious side. If this appreciation of the artistic rises to the surface with the manufacturer's accession to wealth, then it has always been latent. It is *our* fault, and a very serious one, that we have not been able to exert more influence on his opinions than have the musical comedies. It is *our* blame that this latent appreciation of art has not been developed to the open employment of it.

How could we have done so? Well, did any of us ever bring back from England or from Germany anything more interesting to a manufacturer than an idea for his own residence? Did we bring back for his consideration those gripping facts afforded by a comparison of the two countries which prove that architectural design in a factory is not an added expense but a constant and continuing source of increased production and higher profits?

If any one doubts the value of the investment in good architecture in factories, let him go back over the industrial history of England and Germany for the past quarter century. Germany, with the closest margin between cost of production and selling-price, has



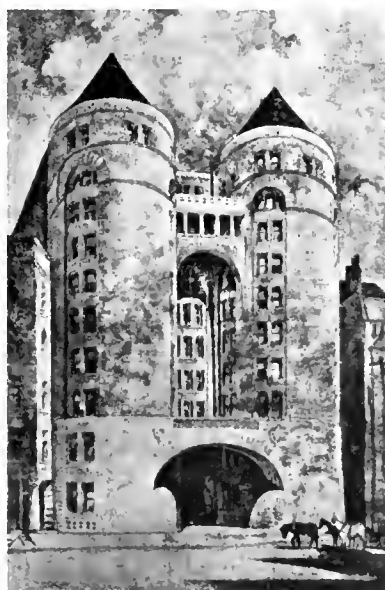
Rudge-Whitworth Cycle Works, Coventry. From Model by Berthold Audsley
A "typical" English factory, old style



Storehouse, Marshall Field & Co., Chicago, Ill. H. H. Richardson, Archt.
An early American warehouse, unfortunately not typical



Larkin Soap Company Building, Buffalo. Frank Lloyd Wright, Architect
A "new-style" American manufacturing establishment, also unfortunately not typical



Warehouse, Minneapolis. L. S. Buffington
A picturesque and romantic solution



Ford Power-House, Detroit. A. Kahn, Archt.; E. Wilby, Asso.
A pleasing type of power-house



Lozier Power-House, Detroit. A. Kahn & E. Wilby, Archts.
Another type, businesslike but engaging

designed and built her factories with consideration of color and form, and interesting architectural and landscape effects, while England still clings to her old grewsome brick enclosures, which degenerate the soul and increase the traffic in gin.

Could the Teuton afford to pay his architects and artists for what our American manufacturer regards as "gingerbread" and still continue to do business at a profit while meeting rabid competition, were it not for the fact that these premises of mine had been proved to and accepted by him as fundamental business essentials? That the architectural styles developed in Germany may or may not appeal to us is beside the question. She has combined the Classic, the Gothic, and good red herring in the designs of her industrial buildings; while England still retains her dull and morbid rows of sordid architectural and engineering factory buildings.

Great as America may be in her manufacturing achievements, our manufacturers know that they can still learn a great deal from Germany. Operating on a small margin is one of the leading lessons that we can learn. Yet these operators on the smallest of margins find it profitable to employ an architect! The low cost of labor favors them, says our American manufacturer. Is it not possible that pleasing working-conditions, reducing the fatigue of the employees and arousing their pride in their work,—that the fruit of the architect's design, in other words,—conduce to low labor cost?

The truth is that we in this country are suffering *economically* from those horrible monstrosities of the superintendent or the engineer,—factories with concrete piers and ghastly glass panels, which blot the landscape and elevate the prosaic bill-board into



Butler Bros.' Warehouse, Jersey City. Jarvis Hunt, Archt.
A warehouse design, sturdy and appropriate



Demmon Bldg., Boston. C. H. Blackhall
A simple and dignified commercial building



Washington Park Warehouse, Chicago. A. E. Robinson
A smaller warehouse regarded as an artistic problem

a work of art, while devitalizing the soul and depreciating the productive energy of all those poor devils who must live in the neighborhood and work out a miserable existence inside the grim enclosing walls of these horrible commercial Molochs.

Why should not the color and the texture of the exterior walls of a factory be designed in brick or concrete, so that they will be as interesting and effective as the marble or mosaic walls of the monumental public library or state capitol are effective? Consider the question of cost. Bricks cost two cents apiece laid, whether they are laid with the favorite morbid black joints of the engineer, or by the architect, who adds to his knowledge of stress and strain his appreciation of values of color and texture.

Can an ordinary brick or pile of bricks be beautiful? Why not! Are the bone buttons on the manufacturer's coat beautiful? Yes, when they perform the function for which they were made, are in harmony with the color of his coat, and are neither too large nor too small.

One of the best illustrations of the argument which I am trying to offer is that which is shown in the illustration of the Administration Building and the Factory at Nela Park. These buildings were designed with the co-operation of the manager of the works, the chief engineer, and the chief of sales. All of them are clever business men seeking higher profits,

and none of them is dishonest enough to claim a knowledge of color and form in the sense that the architect must know it. The little flower-garden at the entrance to the Administration

Building is good business; it soothes the soul of the chap who is called in by the chief for a trimming. It takes the hard edge off the everlasting scratch for a living. The chiefs, who recognized specialized knowledge in their own business, appreciated the financial value of this other specialized knowledge possessed by the architect in the layout, in the use of color, and in the creation of a general atmosphere as a business investment promising good percentage returns. And the amusing part of it is that the actual cost of this Administration Building was little more than the

cost of the most ordinary brick shack. Restful proportions and color were the only considerations, and these buildings are proving the mission for which color and form in architecture were created.

We should let the manufacturer know that, in the eyes of the architect, a brick is the module of design in the front elevation. Treated as such it can put into his factory a quality which makes for employees' pride, for *esprit de corps*, for increased production,—all qualities which the engineer alone can never impart. In the eyes of the superintendent, or the engineer, a brick is a brick and nothing more. It is made of clay, and it



Page & Shaw Factory, Cambridge
First-class candy; worst-class architecture



Factory for Hale & Kilburn Mfg. Co., Philadelphia
Exactly the same problem "muffed" by the engineer



Storehouse for W. M. Hoyt Co., Chicago. Nimmons & Fellows, Architects
A factory problem successfully solved by the architect



Hudson Motor-Car Building, Detroit. Albert Kahn, Archt.: Ernest Wilby, Asso.
A concrete factory designed by an architect

is tested for a specific load. He therefore designs his pier for the beams and for the necessary superimposed load. He is a perfectly good engineer and a most efficient superintendent.

You shall see a man
Who never drew a line or struck an arc
Direct an architect, and spoil his work.
Because, forsooth! he likes a tasteful house!
He likes a muffin, but he does not go
Into his kitchen to instruct his cook —
Nay, that were insult. He admires fine clothes,
But trusts his tailor. Only in those arts
Which issue from creative potencies
Does his conceit engage him. He could learn
The baker's trade, and learn to cut a coat,
But never learns to do that one great deed
Which he essays.—J. G. Holland.

Why should the factory hand, or manager, or the president of the organization be allowed to design and then compelled to do his work in a colorless concrete skeleton or within a sordid heavy colored brick wall, so open to the glare of the undiluted sun, which floods the machines, walls, and eyes? Sanitary? Yes; as the operating chamber of the appendix surgeon is sanitary. But efficient and useful? Hardly. And this is more to the point: will the young man or girl who is compelled to work in this beastly factory retain his or her power and "pep," and his or her ability to produce, so that the stockholders may have increased dividends?

Why should not the cathedral designer, or the man who has designed the more attractive building across the street from the factory, apply his superior and additional knowledge to the creation of that very building, which heretofore has been considered of no importance? He will not misuse his marble and mosaics in this form of construction; they were as incidental to the other problem as brick, concrete, and glass are peculiar to this problem. But I warrant you that the brick or concrete factory building will be as



Horton Ice-Cream Co. F. Goodwillie
A contrast between "new style" and "old"



Mill No. 11, Amoskeag Mfg. Co., Manchester, N. H.
15,000 people employed in 137 acres of buildings as bad — and "typical" — as this!



Maverick Cotton Mills, East Boston
An engineering problem maltreated by engineer and owner



Continental Motor-Car Factory, Detroit. Albert Kahn, Architect; Ernest Wilby, Associate
Exactly the same problem, treated with architectural imagination and success



Tire and Rubber Factory, Spring Mill, Pa.
The same sort of problem, built without any design

beautifully solved as the marble court-house or the library — if tackled with the same spirit.

There's the rub — if tackled with the same spirit! Let the architect who has always tackled a factory with his whole soul and talent, just as if it were a cathedral, let him rail at the manufacturer if he will. (He probably counts him among his closest friends and best clients.) But none others may. It is *our* fault that the manufacturer does not accept the fundamental fact that the proper disposition of color and the proper application of form and proportion have a positive effect on the human mind which means much more to him than the engineer's specialties. We are accusing the manufacturer of no want or neglect; we are accusing ourselves. And the accusation is all the sharper because the solution is so beautifully simple.

But it is first necessary to look facts squarely in the face. And here is the simple fact: that the manufacturer ignores those essentials which are the life of *our* art. If you would appreciate the extent to which *we* have let him slumber, consider carefully the following report of an important questionnaire.

The American Museum of Safety, through its Committee on Factories, sent to numerous industrial kings and managers the following list of questions: Have you considered: (1) The

color of walls and ceilings? (2) Noise on machines? (3) Proper lighting? (4) Cheerful and convenient lunch and rest rooms? (5) Good architectural features, and their influence on the mind? (6) Cultivation of grass, trees, and flowers on factory site? (7) Location of buildings with respect to surroundings, sunlight, prevailing breezes, recreation? (8) Do you agree that the efficiency of operators is increased when the above factors are considered in factory planning? (9) Was your factory designed by an architect or an engineer? Please give

the name and address of the same.

The replies were instructive, pathetic, and interesting. One short-sighted vice-president replied that he had no time to consider the points mentioned in the list, as his whole time was taken up in seeing how he could keep out of jail by refraining from violating the innumerable laws of State and Nation, and orders issued by the Factory Commission under State Laws. He thought, so he said, that under the exasperating labor laws and harassment by commissions that most employers would be insane before the end of a year or two. Another letter complained most bitterly against the ancient conditions of buildings with noise, dirt, and bad color, pleading that in the event of an opportunity to build anew he would consider it good business to pay particular attention to all the items suggested by the nine questions. This man should apply quick depreciation to his plant.

The greatest number agree on the usefulness of color and its effect on the mind, and naïvely reply that they have always used white paint for the covering of their walls and ceilings! Others complained of the decidedly wrong conception of light (a "standard" — created by clever advertising bureaus — that flooded sunlight is necessary), so causing the factory owners to paint the glass of the windows to reduce the glare! The entire situation is pathetic and unnecessary, easily to be remedied by a sane understanding between the factory man, who knows what he needs, and the architect, who knows this *plus!*

We quote a portion of Miss Dempsey's report on this investigation.

"We find that questions three, four, six, and seven are fairly well understood, and replies are made in the spirit of the questions. The question of lighting we find, in a great majority of cases, is being handled by experts, and special point is made of the fact that the lighting is considered, not in quantity, but according to the effect it has on the eyes and nerves of the operators. The science of illumination is no longer to be considered as remaining in an experimental stage.

"There seems to have been a misapprehension concerning questions one and five. We find that 60% of those who answered have considered color, but . . . reading the explanations and reasons, we find that less intelligent thought has been given the color problem than any of the seven, unless it might be number five. The prevailing color seems to be white. . . . In almost all cases chosen because it added to the appearance of cleanliness and to the quantity of light.

"In no case has the color been chosen after actually experimenting with different colors and noting their effects on the operators. It has been found by testing with delicately constructed instruments that color bears a direct relation to



Dodge Brothers' Plant, Detroit. A. Kahn, Archt.; E. Wilby, Asso.
Pier and window opening treated economically and beautifully



Austin Biscuit Co. Bldg., Boston
Codman & Despradelle, Architects
An architectural treatment of pier and lintel

fatigue resistance. One large manufacturing firm has conducted such experiments, the results and details of which they are willing to give to any one desiring the information. It was found, in this research, that a warm gray was the best color. This was standardized and is being used in all the company's factories. It may be noted in passing that gray paint is as cheap as white; and since it has been proved that its use adds to efficiency it is vastly cheaper to use it.

"We come now to the consideration of point number five, which is, perhaps, harder to get before the factory man than any of the others. To the majority of laymen architectural features mean ginger-bread, useless adornment, which should be reserved for monumental buildings. Those who in replying have given an opinion on this point are almost unanimous in expressing the opinion that simplicity of design, adapted to the needs and use of the building, gives a more satisfying result than so-called architectural features, as they understand them."

Let us pause now for our recapitulation. Here are opinions, not of local lightweights chosen haphazard, but of two hundred of the leading manufacturers of America — two hundred of our most profitable potential clients, *if* architecture is a live art. "We find that questions three, four, six, and seven are fairly well understood." Those are the questions which affect the engineer. The questions which affect *us*, and vitally affect *us*, as architects, were *not* understood. I have no quarrel with the engineer. We could no more do without him than

we could be competent architects without our engineering knowledge. And we should have no quarrel with the American manufacturer. In every other respect than good architecture he has been as quick to try for the best thing as any mortal in the world's history. The searchlight should be turned inward on ourselves. Its rays will show nothing canting or superfluous about the question, "Is architecture a live art or only a pedantic profession?" In the age of Peter the Hermit architecture was a live art. But that was an age of monasticism. To-day America is a great manufacturing nation. We are practising architecture to-day here in America. The use of Fine Arts in the market-place, in the slaughter-houses, and in the shoe factories, where steel beams are rolled and where vegetables are canned, is necessary and financially important — provided only that it

is Fine Art, fit, proper, and useful, with all of the essentials, including those of good form and color.

Is architecture a live art or a pedantic profession? The burden of proof is ours. Can we bear it unless we have shown ourselves competent to prove that the abilities of our art include even this ill-considered and specific class of buildings known as factories?



Administration Building, Nela Park. Wallis & Goodwillie, Architects
The flower-garden at the entrance is a good business investment



Factory, Nela Park. Wallis & Goodwillie, Architects
This building was designed with the co-operation of the manager of the works, the chief engineer, and the chief of sales

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PLATES

PLATES LVII.—LXIV.—MCKINLEY BIRTHPLACE MEMORIAL, NILES, OHIO (PLANS, ELEVATIONS, SECTIONS, AND DETAILS)—MCKIM, MEAD & WHITE, ARCHITECTS.

COMMENT in another department this month confronts us with a fundamental problem, both in architectural criticism and in design. In commenting upon the new Widener Library, at Harvard, that structure has been condemned for a disregard of its surroundings, so evident that it is apparent to even the untrained and casual passer-by. The contrast is exactly that between the gentleman born, possessing natural modesty, refinement, and distinction of manner, and the pushing social struggler bedecked with loud clothes and even louder manners. Thus the new library suggests the parvenu in striving to attract attention by forcing itself, in its gross physical guise, among its far better "born and bred" associates, whose manners it might with better grace have striven to assume.

This particular building, well enough designed and proportioned if it stood alone, furnishes a noteworthy illustration of the architectural interloper only because, from its size and prominent location, it illustrates in a greater than usual degree, a failing which is inherent in much of the work produced by the architectural profession. Fortunately this failing is generally realized in buildings of much less importance, and placed in positions much less prominent, than the front and middle of the Harvard "yard."

We believe that the American public is fast approaching a point where the majority will appreciate that such characteristics as dignity and refinement, beauty of proportion, appropriate detail, and charm of location and surroundings, are nowhere more valuable than where they become a daily part of the lives of our younger and developing generations. Therefore it is worth while voicing a professional protest against this architecturally heedless aggression upon the rights of public taste. We are beginning to realize the educational necessity for providing our students with good architectural backgrounds in order first to establish and then to better and strengthen their standards of judgment and taste. On this account it is to be regretted that so mountainous a mass of masonry should have been allowed to dwarf those few examples of the collegiate architecture of our colonies which still exist in the old Harvard buildings. They are a better preserved and more effectively related group than can be found in any other northern institution of learning.

That the contrast enforced between the library and its surroundings is generally felt by spectators, and often rightly judged by them, is best established by an overheard comment from a passer-by: "The new library looks enough like two

million dollars, but it certainly makes all the rest of the yard look like thirty cents." This remark perhaps displays a better native realization of some of the fundamentals of good architectural design than appears evident in the work of some fairly illustrious members of our profession.

We therefore desire to establish clearly the dictum that no architectural design is a proper and artistic solution of a problem when the natural restrictions imposed by the site are not considered, any more than it can be a successful and satisfactory solution when the limitations and restrictions of the owner in regard to arrangement or cost are disregarded. The only difference between the two is that the owner is perhaps better able, in advance, to impose those restrictions that are proper for him to establish. Too often he imposes other restrictions, of which the architect should be the sole and final arbiter rather than he. Of course the natural and inanimate surroundings have no such effective means of pronouncing their protest until *after* the building has taken actual form. From then on, however, to the end of time, are their voices raised in a protest that is now becoming so comprehensible to the ordinary citizen that these silent tongues must eventually come to be as loud and vivid in accusation as the most vociferous and declamatory of owners.

Having raised the finger of accusation, we do not feel compelled to point to any one among the accused as most responsible for this breach of public faith. The guilt may lie heavier upon the donor or upon the architect—we do not know which. Either one should have compelled the other to a better understanding of the conditions than is shown by the regrettable result. But in this particular case it would seem that Harvard College should have had its natural protectors in the overseers and members of the faculty, who are at least supposed to have a word to say in regard to the management of that institution, as well as to its development, physical and otherwise. Certainly, at one time, and not so long ago,—though far too few permanent memorials exist to call that fact to mind,—the aesthetics and taste of that institution were ruled by Charles Eliot Norton with a rod of iron. He had both the spirit and the power to impose at will his standards on the physical development of the yard. But evidently the College has now come upon more dubious times.

Yet Harvard has but lately been making some public pretensions to a department of the Fine Arts, including representatives of the profession of architecture on its roster of lecturers. We wonder how that department can salve its architectural conscience. We wonder still more how the future development of that very department may be affected by such an advertisement of architectural ineptitude as this building provides. If the members of the Harvard faculty are no better judges of consistency than to allow this impropriety a place in their "front yard," it is reasonable to doubt their ability to direct the training of the younger generation in a country awakening at last to the educational value of good architecture.

HOW many of our readers ever stop to consider what the practice of architecture would be to-day if it had not been for the service of the architectural publications? So accustomed are architects to the help of their professional publications that they do not realize the value of this help nor their obligation to recognize it. There are at least six architectural periodicals giving in different ways a service worth many times its cost. No profession or trade is better served by its class publications, and in no field of class publishing are the rewards smaller. The necessity of liberal illustration of the highest quality imposes a burden of expense for the best plates, coated paper, and careful presswork far out of proportion to the price subscribers pay. "The advertising makes up for it," you say. Yes, it does. But what inducement can the papers give their advertisers unless the architects subscribe? All the architectural papers of national scope would have cost you about \$300 for the past ten years. Think what they have done for you in that time! Can you, in any way, perform such a service for so small a fee?

(From "The Brickbuilder")



Ravenswood Presbyterian Church, Chicago, Ill.
Pond & Pond, Architects

THE magazines for review this month present several debatable problems, in criticism as well as in design. In the September *Architecture*, for instance, Mr. Bosworth's house on East 69th Street presents a façade so entirely devoid of ornamentation as to throw its entire interest back upon the stark composition and proportions of its wall openings, which confessedly are not of sufficient beauty in themselves to meet so searching and unusual an analysis. The set problem was undoubtedly especially difficult; but the chosen solution arouses rather than allays the suspicion that a better architectural use should have been made of so wide a frontage. In the new entrance building at Vassar College the interior views serve only to emphasize the essential antagonism existing between the classical style, here instanced by the statuary, and the irreconcilably Gothic architectural background provided by the architects, which by contrast appears at such disadvantage as amply proves its inappropriateness to this use. A more prepossessing exterior has been developed; the architects here avoiding the mistake made in the Andover Theological Building in Cambridge; the tower now arising from a square, not a rectangular, plan. The Bankers' Club of America, appropriately installed in so palatial an architectural setting as Mr. Graham has provided in the new Equitable Building in New York, will here find this requirement also associated with good taste — a perhaps not inevitable companionship. Mr. Lindeberg's Corn Exchange Bank has, if we are not mistaken, been given earlier publication; but it remains a refined restudying of a distinctive and — as we consider the problem in America — an appropriate *parti*. Paul Monaghan's Chapel of Divine Love, in Philadelphia, is a well-composed small building with an appropriately related *flèche*. The tracery in the wall openings is, however, unsatisfactory, the commonplace

Current Periodicals

A Review of the Recent American
And Foreign Architectural Publications

(From "Architecture")



House at Pelham Manor, New York
Frederick J. Sterner, Architect
(From "The Brickbuilder")



Three Arts Club, Chicago, Ill.
Holabird & Roche, Architects
(From "Architecture")



Taylor Hall and Entrance Gate, Vassar College, Poughkeepsie, N.Y.
Allen & Collens, Architects
(From "The Brickbuilder")



Widener Memorial Library, Harvard University, Cambridge, Mass.
Horace Trumbauer, Architect

(From "The Brickbuilder")



Carrollton M. E. Church, New Orleans, La.
Sam Stone, Jr., Architect

geometrical figures being inconsistent with the remainder of the design in freedom and in scale. This design illustrates the danger of attempting the sort of thing done so superbly well by Mr. Goodhue. The issue also includes a charming and unusual brick and stone house at Pelham Manor, N. Y., by Frederick J. Sterner, which we reproduce; a third installment of the extended review of the Hispanic Society publication "Rejería of the Spanish Renaissance;" and several short articles, one on "The Fenestration of Commercial Buildings."

The August *Brickbuilder* squarely confronts us with the entire problem of "Architecture and Its Appropriateness to Site" by publishing Mr. Trumbauer's Widener Memorial Library, "wished upon" poor Harvard in the form of a "red (brick) elephant," which must remain forever a flagrant breach of good taste in its present location; despite the fact that, if it could be considered alone, it should be regarded as the best design Mr. Trumbauer has done. But the size of its stupendous order, and its Brodingnagian scale, make it appear so totally *nouveau riche* in its architecturally dignified and quiet surroundings as to render it particularly offensive in its place. Holabird & Roche's Three Arts Club, in Chicago, while not entirely pleasing in general composition, is unusually attractive and appealing in detail. A bank and office building at Wilmington, N. C. (few architects attain such enduring fame as to have a national bank named after them!), a small bank at Far Rockaway, L. I., and a Baltimore Apartment House, are all rather conventional in their various fields; but thoroughly novel is the new Ravenswood Presbyterian Church, at Chicago, by Pond & Pond, where, by the simplest possible use of brick material, they have managed successfully to suggest historic forms in modern details, of which the brick buttresses and the emphasized upright lines over the principal windows are obvious examples.

(From "The Architectural Record")



Detail, Stuart Duncan House
John Russell Pope, Architect

(From "The American Architect")



Entrance Front, Stuart Duncan House, Newport, R. I.
John Russell Pope, Architect
(From "The American Architect")

(From "The American Architect")



Detail, Stuart Duncan House
John Russell Pope, Architect

A New Orleans church by Sam Stone, Jr., executed partly in brick and partly in plaster, by this latter means succeeds in lightening a rather hackneyed grouping of brick wall surfaces. A new series of articles on Sir Christopher Wren's "Towers, Steeples, and Spires," a group of illustrations of staircases, and prize drawings of the two-apartment house competition are also included.

The September *Architectural Record* features an unusual architectural adventure in a reproduction of "Compton Wyngates," at Newport, by John Russell Pope, carried even to the extent of attempting to reproduce, with modern workmen and materials, the workmanship of Elizabethan times — including its craft inaccuracies of brick joint, bonding, surface texture, or stonework; also imitating those irregularities coming from age and exposure to weather as well as from alterations or partial reconstructions originally carried out at different times. The interiors are rather overwhelmingly consistent in their resolute adherence to elaborate ornamental historic forms, and are unfortunately cluttered by the furnishings. The service gateway is, by the way, far more successful than the over-pretentious main entrance. It is impossible to obtain any proper idea of James Gamble Rogers' New York Yale Club from photographs, because of its towering height (and the narrow street), but

ings at Northampton, displaying a lack of careful study, if anything more inexcusable at an institution of learning than elsewhere, and a Town Hall at Bourne appear in the month's pictorial miscellany. The Capen House, at Topsfield, is illustrated under a most misleading title, the restoration lending so much of a Tudor aspect that, to ordinary modern eyes, it must appear strangely foreign and inappropriate to New England surroundings, and to its Colonial pretensions.

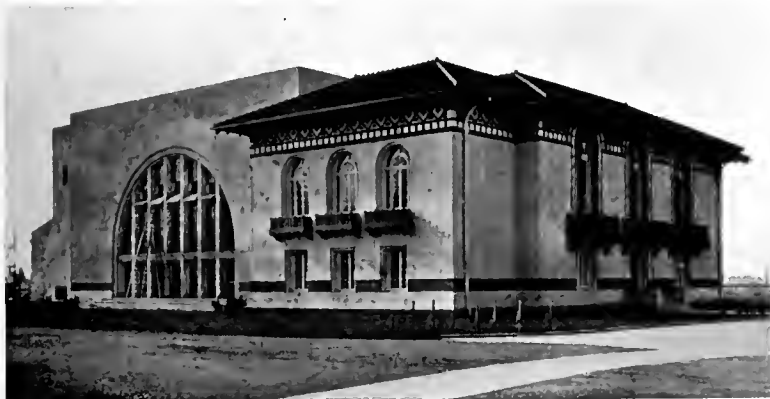
The leading article in *The American Architect* for September 1 continues an instalment from December, 1914. The plates show two studies by Cass Gilbert, accompanied by some working-drawings, for the Industrial Arts School at Trenton, N. J., and the Public Library at Beverly, sometime since completed. Another of Mr. Farquhar's distinctive and engaging California houses is published; and while acknowledging its appeal, we yet confess to regarding its coquettish entrance detail with a touch of Eastern suspicion and reserve. A house by Dühring, Okie & Ziegler at

(From "The American Architect")



House for C. K. G. Billings, Locust Valley, L. I.
Guy Lowell, Architect

(From "The Western Architect")



Assembly Hall and Club Rooms

(From "The Western Architect")



Administration Building

State Hospital, Agnew, Cal.
California State Architectural Department, Sacramento, Cal.

Devon, Pa., is, on the south at least, so interesting as to seem an alteration of an old house — the reproductions being unfortunately so vague as to render more definite approval impossible.

The issue of September 8 contains an article, with illustrations, on Marble Work. The plates reproduce a simple but rather unpleasantly "blocky" brick house, with an elaborate garden, at Locust Valley. Another plate is given to an old Wayland house and its jauntily proposed "desecration;" while of two houses by Wm. E. and Arthur A. Fisher, the one for Mr. Webster is the more restful and pleasing, if only for its avoidance of the nervous and unnecessarily broken design of the other dwelling.

The number for September 15 is a special issue on schoolhouses, presenting little important new material, but gathering a number of previously published buildings, among which the most worthy of attention are the Douglas and Guilford schools at Cincinnati, and a public school at Bayonne, N. J. Mr. Guilbert's Cleveland and Ridge schools, at Newark, have already been illustrated, as is also the case with Mr. Sturgis' Windsor school and Franklin Union. A new Gothic high school at Flushing, L. I., two small and disappointing schools in Missouri, by Mr. Ittner, and many miscellaneous plates from working drawings fill out the number. The small scale at which some of these complicated drawings are published, resulting in the inevitable loss through reproduction of many of their lines, robs them of much of their value. The two articles by James O. Betelle and C. B. J. Synder are upon School "Essentials" and "Lighting."

In the issue of September 22 John Russell Pope's Stuart Duncan House, at Newport, already touched upon, reappears.

The September *Western Architect* illustrates a new state hospital group at Agnew, Cal., designed by the "California State Architectural Department," in a combination of local styles and materials, including decorative brick and tile insert in concrete walls, of a better type and more successful design than

(From "The American Architect")



Guilford School, Cincinnati, Ohio
Garber & Woodward, Architects
(From "The Builder," London)



"The Marquis of Wellington,"
Leicester, England
Everard, Son & Pick, Architects
(From "The Builder," London)



Houses, Mulberry Walk, Chelsea, England
Williams & Cox, Architects
(From "The Builder," London)

could reasonably be expected from an anonymous design by an impersonal "department." Other pages show several examples of small house design, including the "Brick Home" exhibited at the Panama-Pacific Exposition, and the picturesque Lumbermen's Building.

The Builder for August 27 publishes a partially completed church and parish hall at Mitcham, Surrey, by M. P. Burke Downing, and a number of small houses in Chelsea, by Williams & Cox. Although one or two of these structures are a little old-fashioned in design, others are attractively simple uses of the material, while not a few possess a distinctively attractive Georgian flavor. The effective, yet simple, use in combination of bricks of different tones and colors, with corresponding variations of treatment in the color and texture of the mortar joints, should also be remarked as an element in brick design too seldom realized or taken advantage of in American work. The very simplest of these house fronts are perhaps a little suggestive of the domestic work of Pond & Pond, both having been derived, indeed, in the first case, from the same historic antecedents. A number of plates of work by students of the Liverpool School of Architecture is included. The issue of September 10 contains a "Pub" shop-front

by Everard, Son & Pick, that challenges our interest by a lead bay which, while excellent in its general composition, does not repay any too close scrutiny of its details. The plates reproduce an ornate Bishop's throne in St. Alban's Abbey by the late J. Oldrid Scott, and a simple house in Perthshire by Mills & Shepherd, along with some pages reprinted from old editions of books, and plans and elevations of Canada House, Kingsway, London. The section of Civic Design deals with two problems of town planning,—one, York (the city), and the other Bromyard (the town).

The *English Architectural Review* for September contains illustrated articles on an old Cape house, a Robert Adam house in London, some Maltese architecture, and additions to University College by F. M. Simpson.



Houses in Vale Avenue



House in Vale Avenue



House in Mulberry Walk



House in Vale Avenue

Houses in Chelsea, England
Williams & Cox, Architects

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101 PARK AVENUE
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WE are fortunate in being able to print in this issue the photographs of the Villa Costansi, near Rome, taken by Mr. Platt a number of years ago; along with the plan, developed from the notes made by him at the same time. As both garden and villa possess their obvious, and unusual, architectural merits, we refer our subscribers directly to the first pages of this issue.

Since we published — in August, 1913 — a full and adequate appreciation of the art of Mr. F. L. Griggs, the English draughtsman and renderer of architectural subjects, whose superb technic we were thus happily instrumental in bringing for the first time importantly to the attention of the architects and draughtsmen of America, we have been waiting an opportunity to publish a group of older drawings by Mr. Griggs, drawings that he himself now considers rather elementary and unrepresentative of his best abilities. While entirely in agreement with Mr. Griggs' point of view, we nevertheless believe the drawings made by him at this period are invaluable for the architectural student or draughtsman, — the architect of to-morrow, or the beginning architect of to-day, — for whom THE ARCHITECTURAL REVIEW is conducted quite as much as for the architect who has "arrived." We therefore need make no apology, for in selecting and printing six of Mr. Griggs' unusually beautiful and simple drawings, with a text commentary intended to aid the student undertaking to make a study of the difficult art of pen drawing, we are intentionally hoping to interest and assist younger members of the profession. For a precisely similar purpose we have placed Mr. C. Howard Walker's appreciation of Mr. Claude Bragdon's recent book, with a number of selected illustrations, on our text pages; because we believe that the book itself is an unusual contribution too likely to pass unheeded and unseen by the profession, and also that Mr. Bragdon's decorative renderings possess a beauty that makes them in themselves worthy a place alongside Mr. Griggs' drawings for the instructive contrast they provide.

Mr. Henry Bacon's Trask Memorial, recently dedicated in the park given to Saratoga Springs by the late Mr. Canfield, provides so successful a setting for Mr. French's unusually charming figure that it is well worthy of a showing in detail, particularly as we are too seldom able to exhibit to our subscribers so fortunate an alliance between

architect and sculptor in American work. We are therefore giving four plates to show the working drawings, drawn partly in ink and partly in pencil, in order completely to illustrate the mediums used by Mr. Bacon to obtain his desired result; while the photographic views that accompany them show both architecture and sculpture in the final completed relation they bear each to the other.

The house recently built at Framingham for Mr. Dennison — a view of the garage of which is reproduced below upon this page — possesses obvious merits that illustrate once more the treatment of an American dwelling in a manner recalling English precedent, at the same time that it possesses indubitable and interesting values of its own as a distinctly American type of design. The house is a fresh and unhackneyed study of the problem, and again we are able to exhibit both the photographs of the finished buildings and the drawings by means of which the results there shown have been obtained.

We have held over from this month to next three of the features we had first planned to publish in this issue, among them being a very unusual house at Charles River Village, by Richardson, Barott & Richardson, which we have reserved for separate consideration because we will by that means be better able to show it to advantage, and more fully than would have been possible this month. The same thing is also true of Charles Barton Keen's house and the new Academic Building at Exeter, which delay will enable us to print adequate photographs along with the drawings next month.

The December leading article will treat of some French Period mantelpieces, and should be of value to our readers because of the unusual number of interesting and authentic examples of mantelpieces of a little-known period that it contains. In addition, we will

probably find space to include a short article on a most picturesque and charming village, Dinkelsbühl, in our opinion successfully rivaling the near-by, better-known — and somewhat over-tourist-ridden — Rothenburg itself.

Our January number will be a special issue similar to the one given to York & Sawyer's Guarantee Trust Building a year ago, in which all our plates and pages will be taken for the exclusive publication of one of the most important recent examples of monumental architecture in this country. — Mr. John Russell Pope's Temple of the Scottish Rite, at Washington, D. C., the construction of which, after extending over a number of years, has just been completed. Selections from an unusually complete set of photographs will be made for our plate and text pages, and these will be further supplemented by some of the more important working drawings and studies made during the course of the work.

The publication of this material in January will hold the final instalment of Mr. Heacock's articles on Philadelphia Ledge-stone Work over to the February number, which will again be nearly exclusively given to this article and its accompanying illustrations, most of the latter being at large size, so as to render them the more complete and definitive. In connection with the interest that has recently been aroused in the use of stone as a material demanding its own architectural expression, this series should be especially valuable to the profession. The large-size photographs, clearly showing the surface texture of the material and treatment of the mortar joints, have already aroused a demand for prints to be used bound into specifications; and the publishers are considering obtaining sets of plate proofs adapted to this purpose, provided a sufficient demand is shown to exist.

In this connection the Publishers of THE

ARCHITECTURAL REVIEW announce a new series of articles dealing with another building material of even more importance to the profession, arranged and carried out along the same lines as Mr. Heacock's series. The illustrations will be reproduced at the same large scale and will illustrate all possible variations from commonplace practice in design and workmanship. The first instalment will probably appear in the issue immediately following Mr. Heacock's concluding section; and in both cases the accompanying extra plates will be filled with material selected for its relation to these principal articles.



Garage for Henry S. Dennison, Esq., at Framingham, Mass.
C. M. Baker, Architect



FRONT ENTRANCE
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at Nordhoff, New Jersey.
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The third number of the White Pine Series of Architectural Monographs, published bi-monthly under the personal direction of Mr. Russell F. Whitehead, formerly editor of "The Architectural Record" and "The Brickbuilder," will be mailed December first. The subject will be "The Domestic Architecture Developed by the Dutch in Their Colony of New Netherlands," with text by Mr. Aymar Embury, II.

If you are not receiving the monographs, and you feel interested in having them, kindly advise Russell F. Whitehead, 132 Madison Avenue, New York City, who will be pleased to furnish you with the third and all subsequent numbers.

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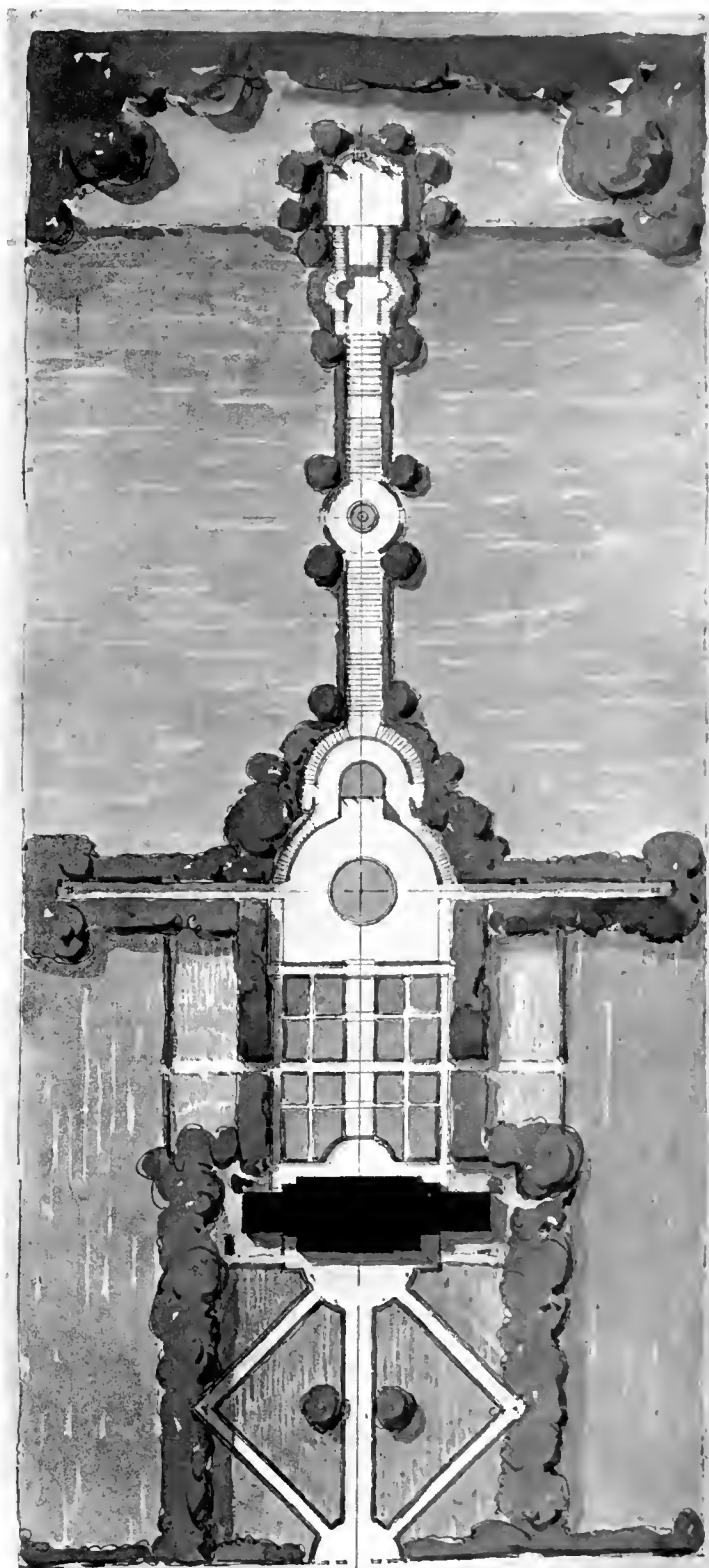
Number 8

A Renaissance Villa Near Rome

With Photographs and Sketch Plan by
Charles A. Platt

THESE pages register an effort to note down and preserve the unique architectural interest that at one time rightfully appertained to the Villa Costansi, near Rome. This villa, situated about six miles outside of Rome, in the direction of the Villa Pamphili Doria, was originally known as the Villa Falconieri; but at the time it was visited and these photographs and notes made it was called Villa Costansi. As, since that time, it has passed into the hands of a German owner, it very likely may now go by a still different name, for, whatever may have been the owner's purpose when the estate was purchased, it has since evidenced its change of ownership — and taste — by blossoming out in a coat of heavy red paint instead of the former charm of weathered pink and white.

At a still more recent visit the gardens surrounding the villa were found to have been so done over and altered as to have largely lost their original interest; so that, at the present time, they are not worth visiting — except possibly as a study for an attempt to trace the original design. The chief beauty of the place and the greatest interest in its development — from the point of view of the architect — consisted of the very unusual and frank plan, practically developed solely along a narrow vista across a valley, the surrounding farm land encroaching upon the villa from all sides, and yet not being allowed to mar the general effect. It had, in fact, even been used to add to its appearance, just as the natural variation in the ground levels has been skilfully taken advantage of to produce the effect desired — as should be evident by a careful study of these photographs and plan.



VILLA COSTANSI Near ROME

Not only is this treatment an unusual one, seldom encountered in visiting or reviewing the gardens and villas of the Renaissance, but it is, as it happens, a problem that should be much more frequently met with in this country than in Europe. In certain sections of North America, notably along the Valley of St. Lawrence, and on the river above Detroit and through Lake St. Clair, it is customary to find just such long and narrow strips of land, resulting from the older farmsteads having been divided and re-divided — and always in one direction — so as to provide a dwelling location on the main thoroughfare along the border of the river, leaving the farmland at the back of the strip.

In this Italian garden the boundaries of the narrow strip of developed land are so disguised that the ordinary visitor would not realize or distinguish between the points where they begin or end. Besides the treatment of the terrace levels down into the valley below, the photographs show the rough shape into which the neglected garden had grown — through lack of care for a number of years. The original lines were, nevertheless, so clearly marked as to have made it easily possible for the new owner to have redeveloped the garden along its very interesting original lines; instead of which he has superimposed a new garden, of irregular plan, on the first terrace — the result being entirely to destroy the beauty and simple effectiveness of this emphasized vista, and to cut the plan directly in two.

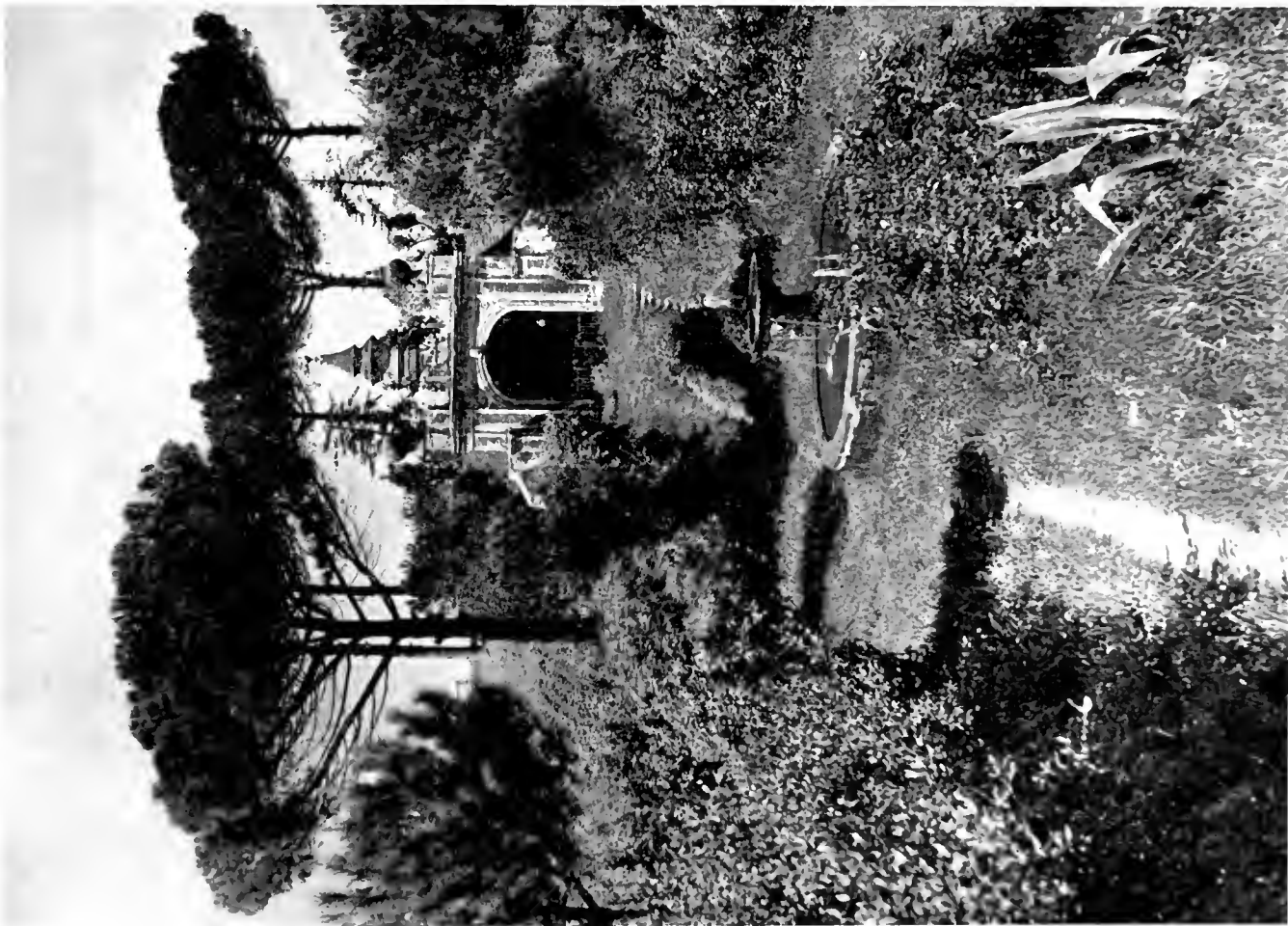
Whether or not the free and baroque — almost with a suggestion of the Chinese in an occasional outline — terraced steps and grotto have been retained in even a modified form is also unknown to the writer.



VIEW TOWARD END OF GARDEN VISTA



APPROACH TO VILLA
THE VILLA COSTANSI, NEAR ROME



GROTTO AT GARDEN END



THE VILLA AND TERRACES FROM GARDEN END

THE VILLA COSTANZI, NEAR ROME

A Note on the Technique of Architectural Delineation

As Expressed in Some Drawings by Mr. F. L. Griggs

By Frank Chouteau Brown

THE question of how to develop and master some means of pictorially expressing an architectural design in a manner that will adequately — if not even attractively — place it before a client is of the greatest importance to the younger draughtsman or architectural designer. The would-be artist — endeavoring to render his designs in a perspective form that will enable his potential clients to recognize the appearance the structure will have when completed — generally finds himself baffled at the very outset by the difficulty of arbitrarily expressing an object composed of flat planes by means of a conventional use of pencil, or pen drawn, lines.

The principal problem in rendering a drawing comes from the necessity of first recognizing — and then comprehending — the arbitrary convention essential from the outset to the pen and ink draughtsman. In nature there exist but few hard lines, — those lines almost always occurring at the outlines of objects where sharp contrasts of color, texture, or atmospheric intensity produce a line of demarcation between two distinctly separate planes. The most important — because generally the sharpest defined — of these is the contrast in color and intensity caused by the shadows cast from lighted portions of the object.

These different "tones" or "planes" are rendered in a manner most true to nature by the photograph, which merely eliminates the color values; hence obtaining an equally arbitrary but easily comprehended series of gradations in tones — of different values — instead. A very similar treatment is, of course, possible in a gouache or sepia rendering in water-color. There, as well as in the photograph, the effect of the shadowed area extending across the front of the building and partly out over the street may be reproduced by an equally "flat" tone. In making a pen drawing, however, it is necessary carefully to build up this tone (as in Fig. 2) from a great number of individual lines — by their means producing a tone appropriate in intensity or color to the tone of the shadow found in reality, or in the photograph. In composing his shadow in this fashion, the pen draughtsman has one dis-

tinct advantage over the artist working with the brush; in that it is difficult for him to compose this shadow without, at the same time, expressing in his lines — either by their direction or treatment — a certain amount of texture; the sort of texture that, for instance, would be found in nature in the different materials composing the face of the shadowed wall, or in the cobblestones or dirt of the street, or brick of the sidewalk, over which the shadow is cast.

The intelligent and experienced draughtsman can suggest both shadow and texture of material, at the same time, by the particular kind of line employed. By further modifying his line, he can further introduce a suggestion of color — which suggestion, however, is again arbitrary, and may, therefore, suggest one kind of color to one individual and another kind of color to another. Of course, ordinarily speaking, great care in rendering objects in shadow is actually not desirable — the result in nature being that the details of these objects blend and disappear into the shadow in such a manner that they are not distinctly seen by the eye, even though they are generally caught and retained by the lens of the photographic camera; and not being actually seen by the eye in nature, it is therefore not desirable that they should be caught and rendered by the draughtsman in delineating his drawing.

Nevertheless, the fact that the pen draughtsman has to obtain his effect by substituting separately drawn "lines" for an even "tone" is, in itself, annoying and confusing to many spectators — until they have trained themselves to accept the resultant effect as an arbitrary substitute for the simpler tone provided by the shadow in nature, rather than as an aggregation of lines in whose arrangement or evolution they are more or less interested, perhaps even against their desire. It is, of course, the business of the draughtsman studying the technique of pen drawing to be interested in these very factors, — as he acquires knowledge only by comprehending the means by which certain effects or results have been obtained by other draughtsmen, — in this way learning how he can himself ex-

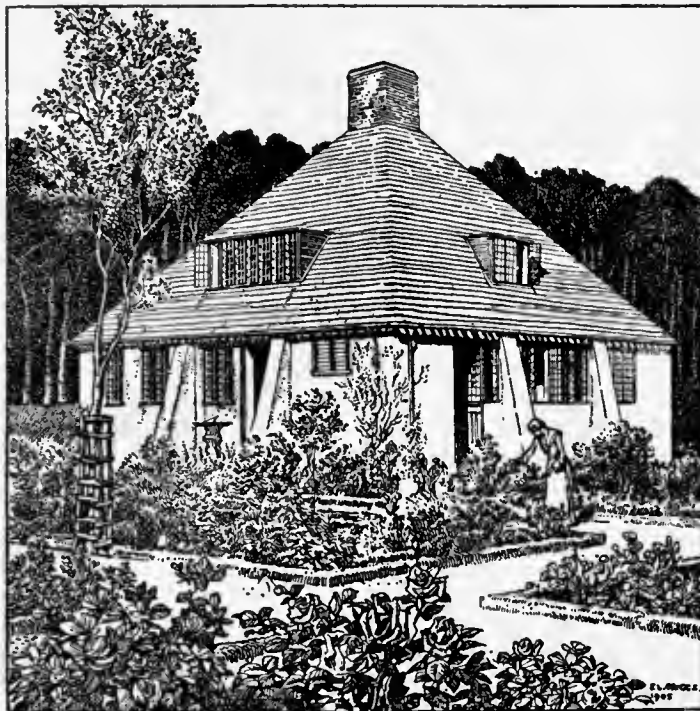


Fig. 1. "Little Coppice," at Iwer Heath, Bucks. View from the Road

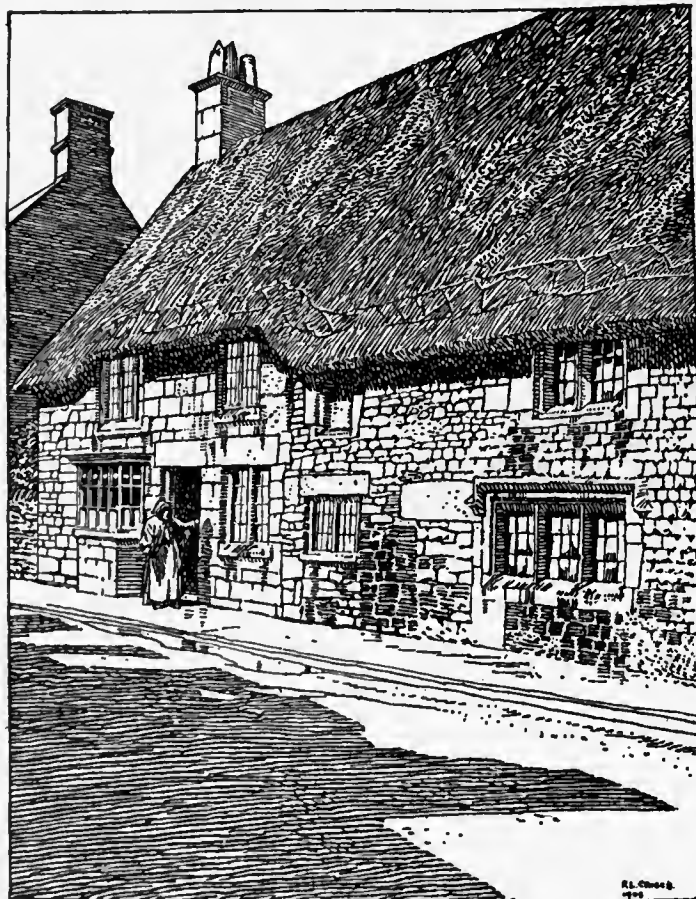


Fig. 2. Cottage in Watery Lane, Campden, Gloucestershire

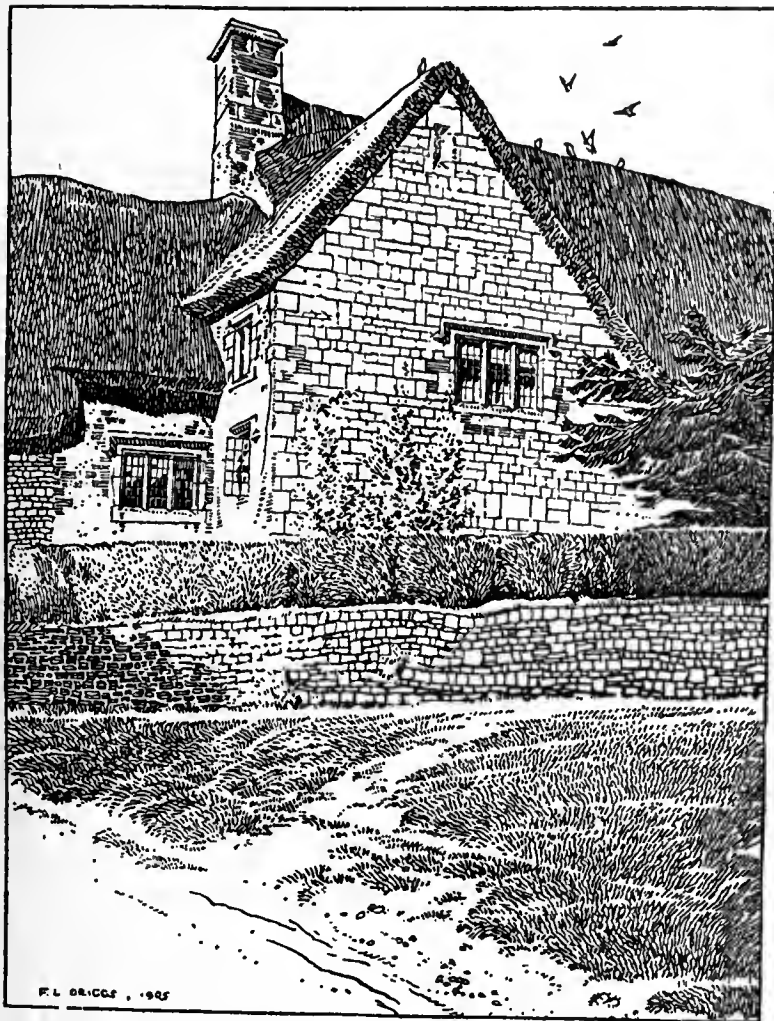


Fig. 3. The Thatched Cottage at Westington

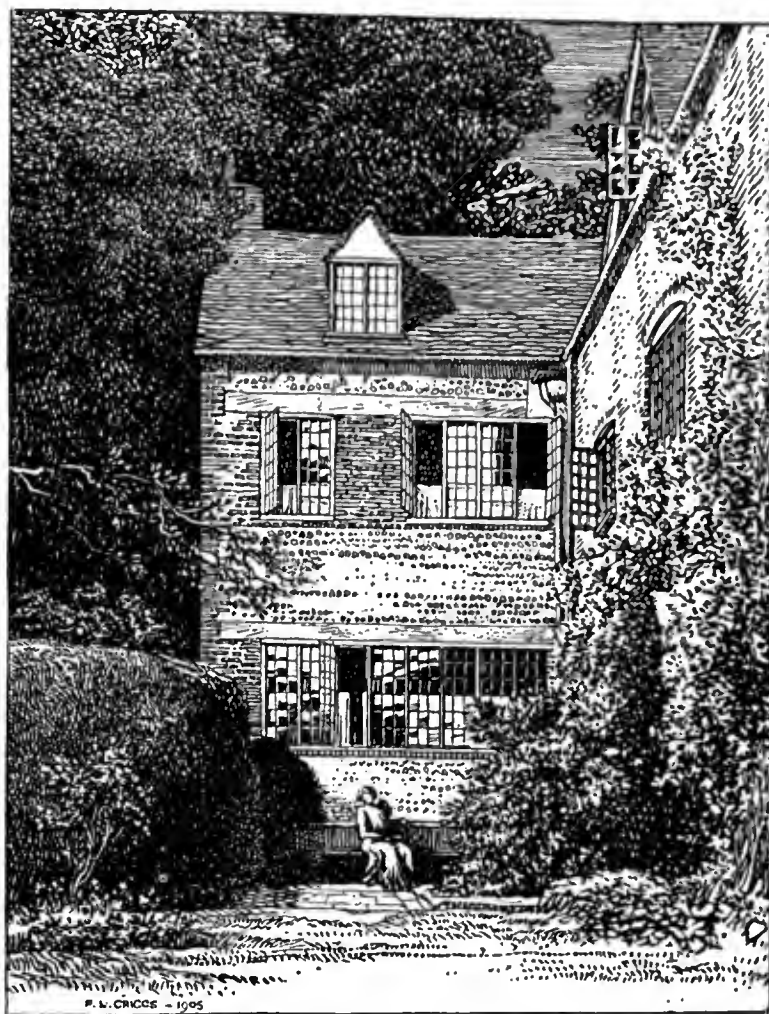


Fig. 4. Combe End, Whitchurch, Berkshire

press those same effects by similar or, sometimes, by radically different means that occur to him as best in connection with his own expression of architectural objects and their accessories.

The young draughtsman encounters still further troubles when he attempts to render the foliage and other objects of nature surrounding his houses; and he is at first generally compelled to fall back upon mere imitative copying of other pen drawings for those portions of his sketch—besides fumbling rather blindly along with the rendering of his architecture itself. In the course of several times repeating this process, he may discover that, to become a successful pen draughtsman, it is necessary for him first to arrive at some arbitrary—and perhaps, at first, rather mechanical—means of substituting (first in his own mind, and then later upon his paper) “lines” for the planes of these natural objects he desires to depict. If he follows this clue conscientiously and understandingly, he may discover at last that the “technique” of rendering is no more than finally arriving, by an intelligent method of selection from various kinds and directions of line-arrangements—that may, actually, only be undertaken in his own mind—at that particular treatment best expressing his own individual and characteristic solution of this problem. By constant practice he will, after a while, discover the particular method of arbitrary “translation” of planes into lines that is most natural and expressive of himself and his outlook on this problem. After having found his particular convention, he has still to develop freedom and ease in its use and in the employment of his selected medium; and this he can achieve only by means of constant practice, till eye, mind, fingers, and pen all work easily and fluently together, without conscious thought or friction, in achieving the effect he desires and imagines in his mind’s eye.

It is hardly possible to tell how to achieve an individual “technique” of pen rendering in the narrow limits of these pages; but as each individual learns as much by close observation of the experiments of others as by practice,—and as, to practise an individual technic, each one must select for imitation or experiment from other solutions of similar problems those means that

most appeal to him as desirable and best,—no better means of study and self-instruction exist than are to be found in the pen drawings of other draughtsmen.

But here a difficulty is at once encountered. The problem is so complex. It presents so many aspects to the beginner, that he is ordinarily unable to separate and select from the finished products of other artists those details of their study of their problem that most would benefit him in his—and this is the more true the more practised and expert is the draughtsman whose work he is studying; for that expertness has given him not only an easier control over his pen, but also made it possible for him to express his object by a sort of artistic “shorthand” that is very confusing to the uninitiated, who has to draw many lines to express the object that the more experienced draughtsman can suggest in a very few. In other words, instead of having to consider his object as composed, individually, of texture, color, detail, form, light and shadow, modeling, outline, etc., and its background of color, texture, atmospheric depth, light and shade, etc., the expert draughtsman thinks of all these minor parts of the problem at the same time, and so suggests them all at once in lines by his expressive technic. Therefore, if the beginner can only find for his study models where some one or two or three of these details—only—have been considered and expressed by the master draughtsman, he can the more easily recognize and study the means of expression employed, and hence begin to select those means that appear to him as most desirable and suitable for his own use, or appear to be most adaptable to the ideal of his own technical individual self-expression, that he has perhaps already begun dimly to see as a final goal toward which to strive.

Drawings of this sort can occasionally, though not often, be found. The drawings of Martin Rico and Daniel Vierge, for instance, dealing with Italian or Spanish subjects, are sometimes so simple a problem as to be capable of expression largely through the shape, outline, and intensity of shadows cast by the sun upon a white plastered wall surface. In other climates other aspects of the problem are more likely to have been encountered. In the simple gray days and quiet atmosphere of the English climate,

for instance, matters of texture, color, or material are more likely to be given first consideration by the artist endeavoring to render the simpler English architectural forms. And this brings us exactly to the point where it is possible to explain why these six drawings by Mr. F. L. Griggs have been selected and here reproduced to provide the draughtsman with material for practically a "first lesson in pen drawing."

These drawings by this English artist have been selected for one reason, and one reason only. They possess for the American draughtsman, or the architect interested in any degree in the presentation of his architectural designs or the rendering of architecture after an attractive fashion, an invaluable and simple lesson in delineative technic. Without attempting to do full justice to the skilled draughtsmanship exhibited by these drawings, their two chief virtues can yet be adequately suggested in a few paragraphs. Those desirous of deriving additional benefit from a further study of this period of Mr. Griggs' work should refer to the original volume in which these drawings first appeared, "A Book of Cottages and Little Houses," by C. R. Ashbee,* where other examples will be found that will repay most careful study. We call attention to this volume as it happens to be comparatively unknown and seldom called for in our libraries.

It is perhaps not necessary to point out the painstaking consideration and study given by the draughtsman to rendering these few chosen subjects, inasmuch as the careful drawing of the flower-garden and the expressive rendering of the sapling's foliage apparent in Fig. 1 should be obvious to even the casual observer. Such draughtsmanship as this could have resulted only from a full and intimate knowledge of the flowers, the garden, the foliage — studied from nature. Nor do we care more than to call passing attention to the successful expression of texture and material, evidenced perhaps as well as anywhere else in Fig. 2, in the cottage with its brick end walls, its thatched roofs, and its differently textured masonry, shown in the street front — characteristics that reappear in all four of the following drawings,

*Published by the Essex House Press, London, England, 1906.

but especially in Figs. 3 and 4, where also reappear that careful study and superb draughtsmanship in the rendering of the foliage of the different trees and vines, hedges and grass, that in his more recent work has gained greater freedom than is shown here. From that very fact, however, it there becomes the more difficult of analysis by the student anxious to arrive at a real comprehension of the means the artist has employed to realize his desired effects, for it is only by this exact technical realization that the student draughtsman can benefit himself and improve his own technical resources and understanding. If granted no other superiority, Mr. Griggs has no equal in the expression of these natural architectural accessories, and, for that reason alone, no draughtsman can afford to be ignorant of his work.

The two following illustrations, Figs. 5 and 6, bring the particular moral this group is intended to point most directly before the reader. Here the draughtsman appears entirely to have disregarded all adventitious aids in the presentation of his architectural subjects. No specious or brilliant rendering of sky or foreground has been introduced to aid the stark architectural outlines of his given subjects. He has confined his problem to the bare expression, first, of cast shadows, rendering them after a fashion so simple that it seems almost mechanical at first glance; and second, the material, combining the presentation first of texture and second of color.

The ordinary draughtsman, starting out to master the art of pen rendering, is easily confused by the complexity of the problem presented by even the simplest building, placed against its natural surroundings; and this confusion of ideas easily develops into a confused rendering, in which he loses sight altogether of the necessity for technic, by the development of which only can he achieve final mastery of a complicated problem in perspectival rendering. Bare technic, unadorned, is seldom placed in such bold relief as in the six drawings we print on these three pages. No draughtsman can afford to ignore them, as, by their study, he can learn much about the rendering of architecture and its accessories.



Fig. 5. Izod's Cottage, seen from the High Street, Campden

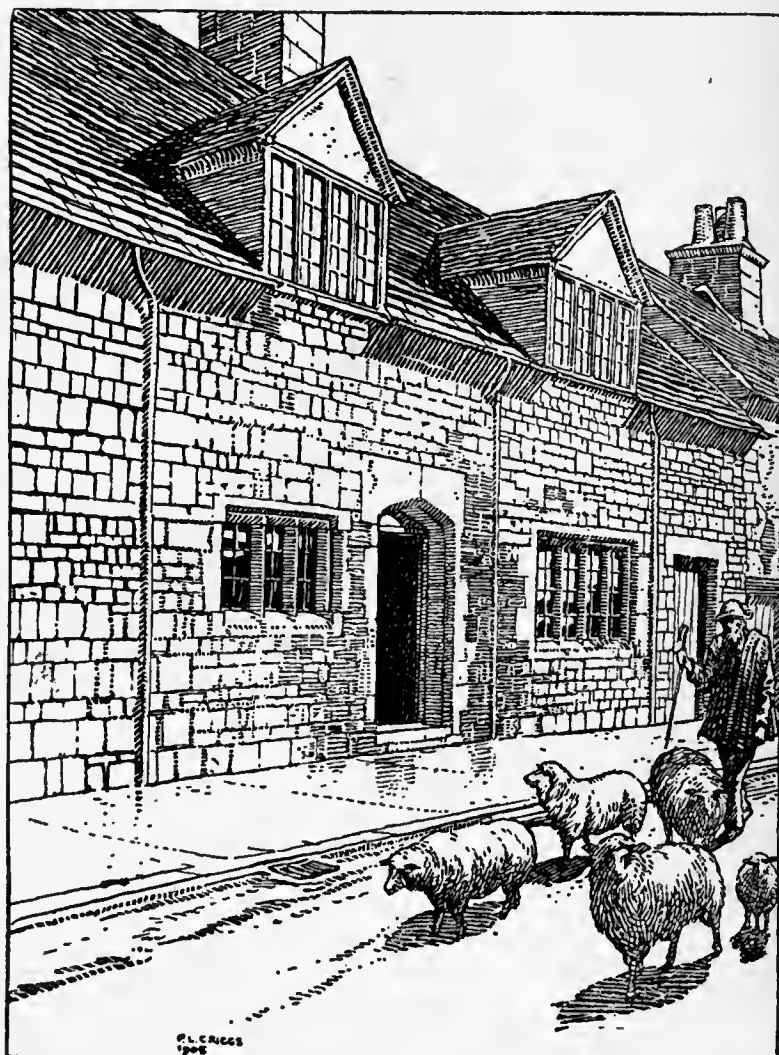
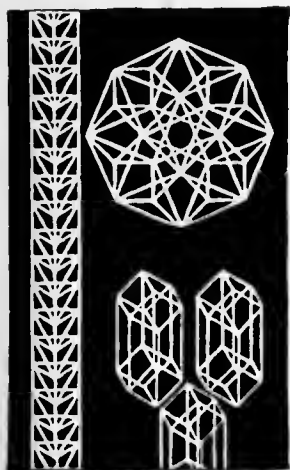


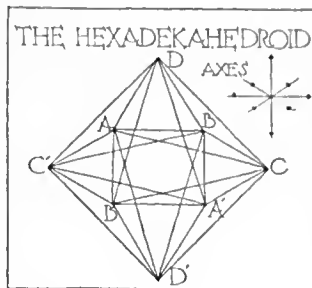
Fig. 6. Cottage in Watery Lane, Campden

A New Source of Architectural Ornament *

By C. Howard Walker



MR. CLAUDE BRAGDON'S book on "Projective Ornament" in the fourth dimension is interesting in both text and plates, and is very valuable to designers, as it accentuates the fact that all ornament is necessarily orderly, and is therefore fundamentally based upon the factors of graphical expression of geometry, and it develops that expression beyond the methods thus far adopted, and by so doing makes



beyond tabulated data is sound; but the idea that there is a modern change from the accumulation of facts to a contemplation of mysteries is deceptive. The progress of the world has been made by an accumulation of facts, deductions from which prefaced the penetration of mysteries. The mystery of yesterday is the fact of to-day. Failures come from the attempt to deal with mysteries without data, without adequate knowledge of

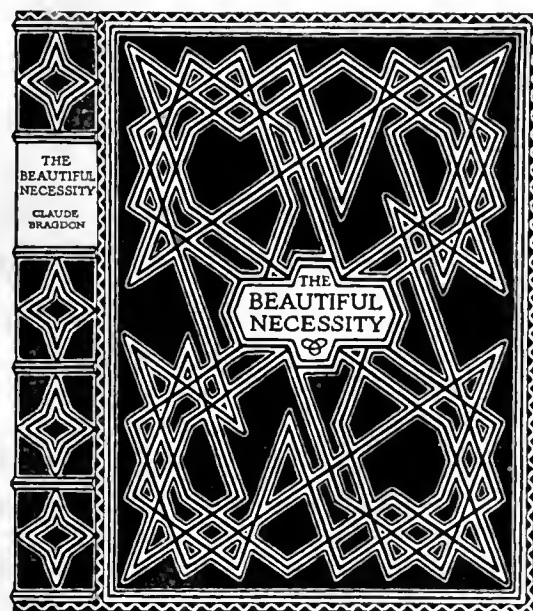


evident a method not hitherto used, and therefore original and new. Man expresses himself in the graphic arts in the terms of the universe as he knows it; and as his knowledge increases, it is more and more evident to him that the universe of which he is a part is pre-eminently orderly, and that he fails to co-ordinate with it unless some type of order exists in his expression. Also it becomes patent to him that the structure of the universe, its skeleton, so to speak, is geometrical. The graphical statement of geometric skeletons or plans has thus far been confined either to the delineation of two dimensions, or of three dimensions in isometric projection, or in perspective; and while such designs or skeletons have infinite variety, the development of detail has been by arbitrary subdivision or by the addition of details. Mr. Bragdon opens in the fourth dimension a still further development, which greatly enriches the geometric *foci*, and creates its own detail. The geometric skeletons of tesseracts, etc., are higher organisms than those of isometric cubes, etc. Nor need the apparent mystery of a fourth dimension bewilder the student. Its definition as a direction at right angles to every known direction

means, graphically stated, merely the addition to the representation of a solid, of other similar solids projected out of each of its surfaces, all to be transparent; i.e., all boundaries of all to be drawn. When once comprehended, the ponderous terms of solid geometry lose their terrors, and the student appreciates by sight and not by sound. The statement that fourth dimension is a phrase expressing research

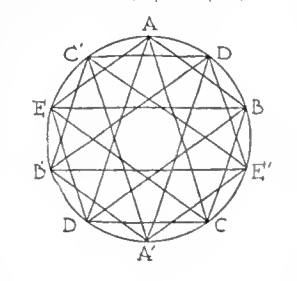
cellent, as announcing the great entities which produce conflict or contrast according to skill in their use.

The illustrations show some decorative figures obtained by this process, as well as suggesting the method by which they are obtained.

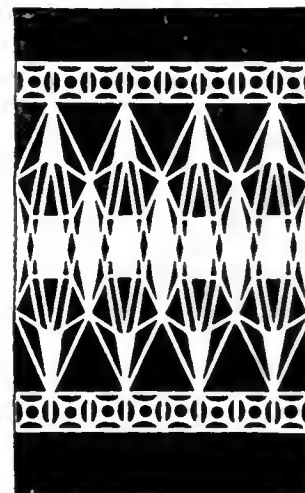
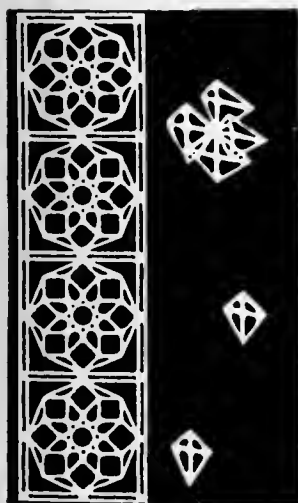


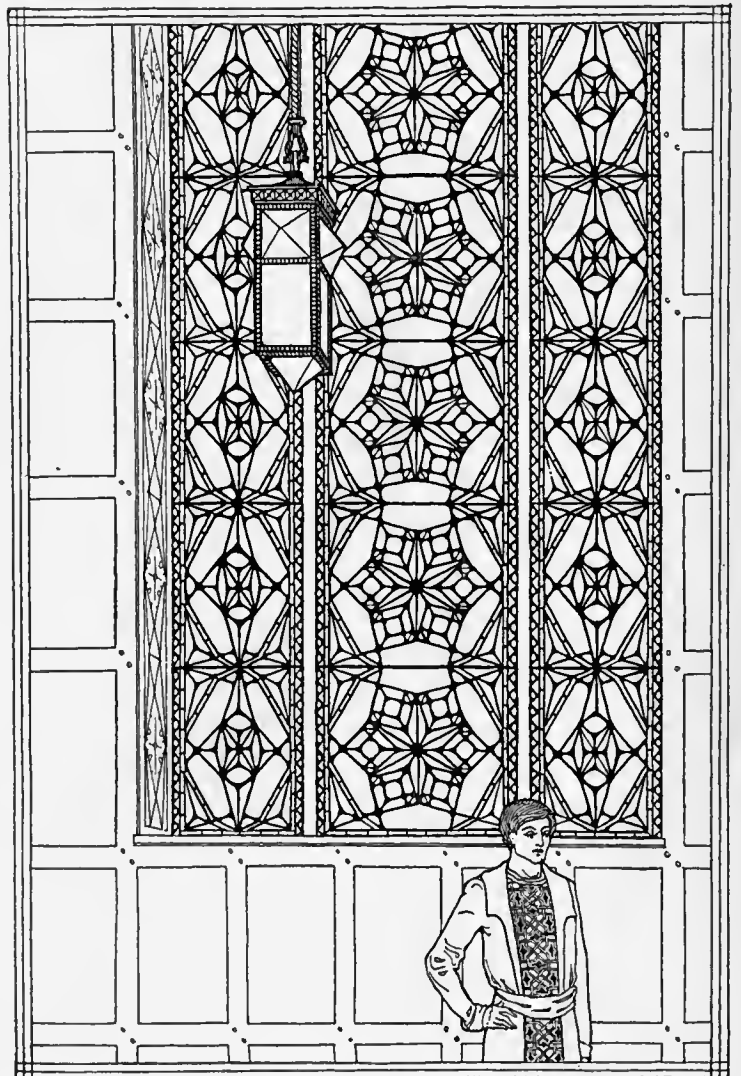
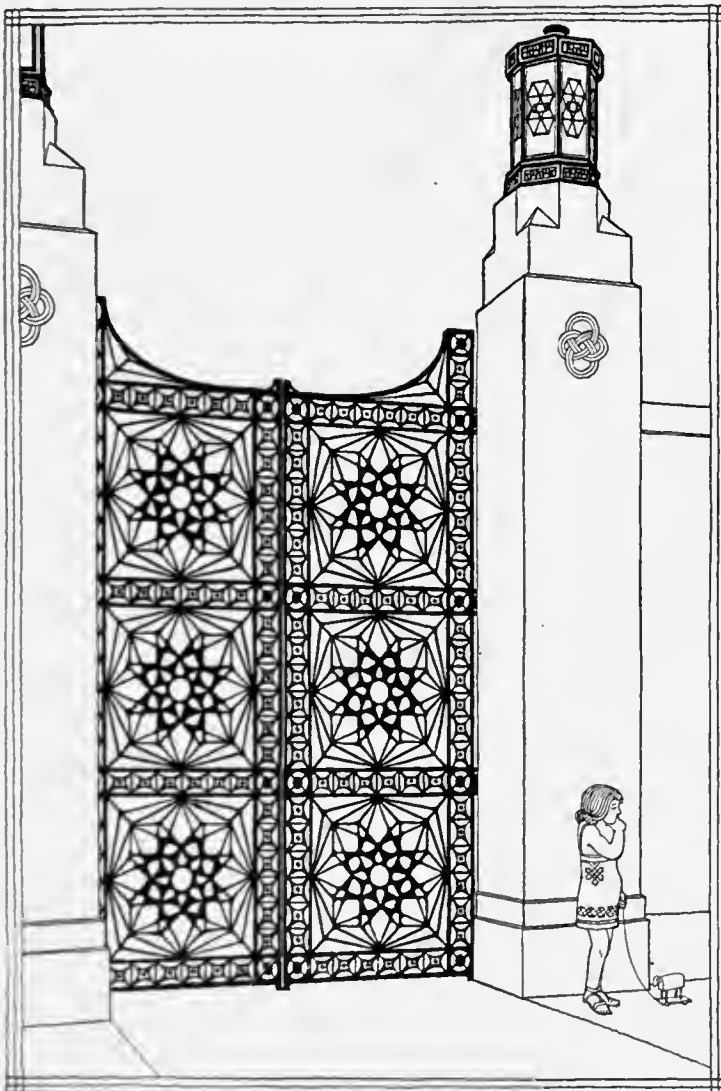
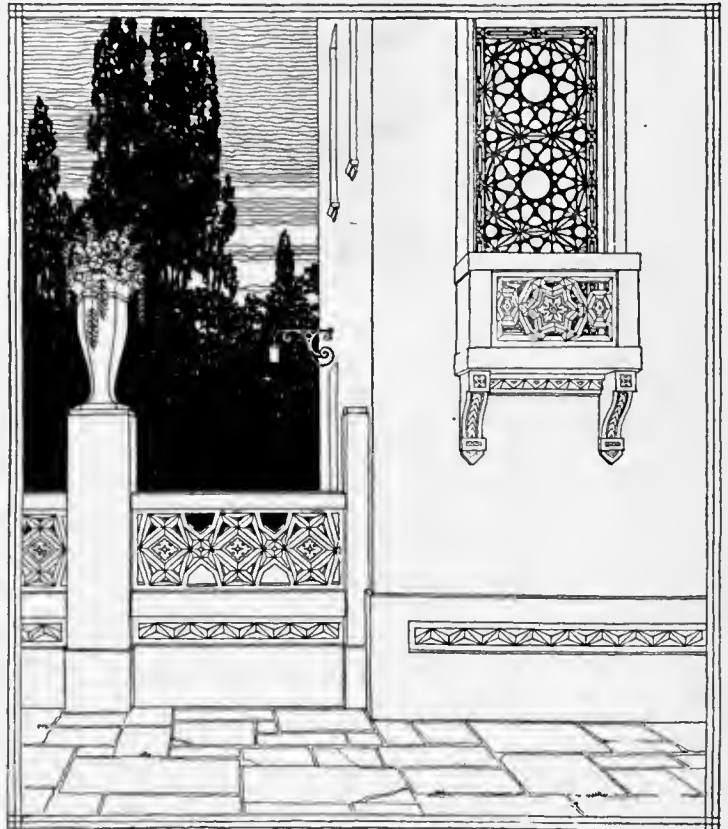
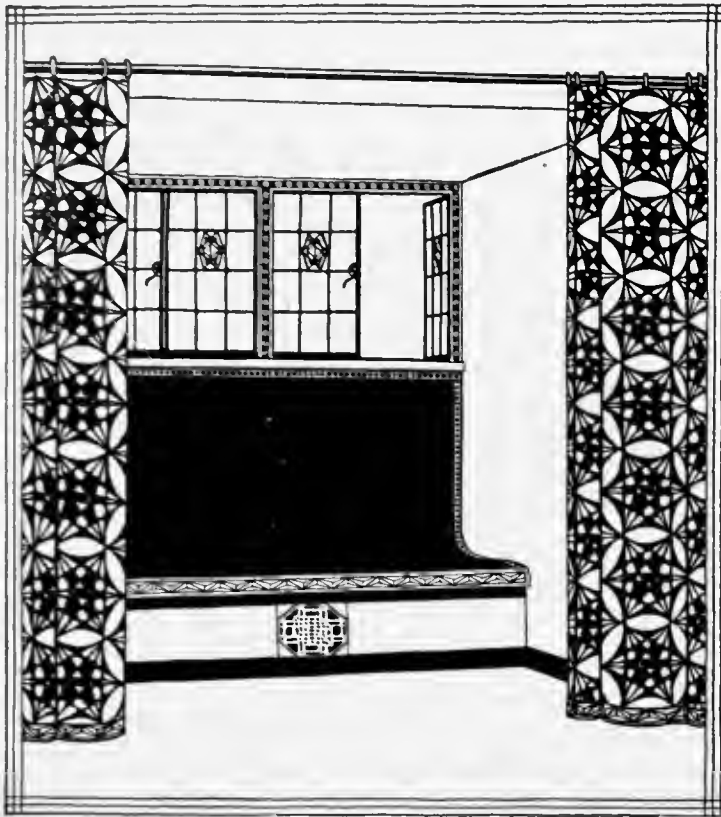
BINDING: THE KNIGHT'S TOUR (MAGIC LINE OF 8 SQUARE)

PLANE PROJECTION OF TWO SYMMETRICALLY PLACED PENTAHEDROIDS IN A HYPERSPHERE



* "PROJECTIVE ORNAMENT," by Claude Bragdon. 5½" x 8½". 79 pages, with 75 illustrations in the text (13 being reproduced at full-page size) and a frontispiece in color. Published by The Manas Press, Rochester, N. Y. 1915. Price, \$1.50.





These four illustrations from Mr. Bragdon's book, "PROJECTIVE ORNAMENT," are selected to illustrate exactly the author's suggestions for the particular application of this ornament to different materials,—iron, glass, stone, and draperies. The opportunity is also utilized to add a word of editorial appreciation for the exquisite draughtsmanship incidentally portrayed

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Editor, Frank Chouteau Brown; Boston. Managing Editor, Henry D. Bates, Boston. Business Managers, Henry D. Bates, Boston, and Merrill B. Sands, New York. Publisher, The Architectural Review Company. Stockholders holding one per cent or more of the capital stock, J. E. R. Carpenter, New York, Merrill B. Sands, New York, and Henry D. Bates, Boston. Bondholders, none. (Signed) HENRY D. BATES, *Business Manager*.

Sworn to and subscribed before me this eighteenth day of October, 1915.

WILLIAM H. BARTLETT, *Notary Public*.

PLATES

PLATES LXV.—LXVII.—SPENCER TRASK MEMORIAL, CONGRESS PARK, SARATOGA, N. Y. (PLAN, PHOTOGRAPHIC VIEWS, AND DETAILS) — HENRY BACON, ARCHITECT; DANIEL C. FRENCH, SCULPTOR.

PLATES LXVIII.—LXXI.—HOUSE FOR HENRY S. DENNISON, ESQ., FRAMINGHAM, MASS. (PLANS AND ELEVATIONS) — C. M. BAKER, ARCHITECT.

PLATES LXXII.—LXXIV.—SPENCER TRASK MEMORIAL, CONGRESS PARK, SARATOGA, N. Y. (ELEVATIONS, SECTIONS, DETAILS, AND PHOTOGRAPHIC VIEWS) — HENRY BACON, ARCHITECT; DANIEL C. FRENCH, SCULPTOR.

ANOTHER insidious and subtle attack upon our public taste in America is perhaps concealed in the recently announced intention of the President to adopt the notoriously vulgar McCall mansion in New Jersey as his summer home. Already have those ignorant arbiters of modern civilization, the newspapers, begun their publicity campaign — a campaign further incidentally aggravated by the sentimental emphasis recently placed upon the President's personal affairs. To quote a concrete instance, taken from the *Boston Sunday Post* of October 24:

"'Shadow Lawn,' the new summer home of President Wilson, has the distinction of being the most magnificent (*sic!*) domicile which has ever housed a chief executive of the Nation while in office. Architecturally it is as far superior to the White House (*sic! sic!*) as the latter is to the residence of the average well-to-do citizen of the United States!"

And this is only one of many instances of the standard of newspaper taste that has been spread broadcast over the American countryside like a blight, further malforming undeveloped American standards of artistic appreciation.

What are the facts? The President's official residence is the "White House," in Washington — by some strange and fortunate chance the most gentle, dignified, and beautiful official residence possessed by any nation of world power. Other rulers have their dwellings — occupied occasionally — of greater age, of more historic association, and — though rarely — of greater beauty; but we cannot recall a single instance where, in the ruling capital, better architecture and greater taste combine to surround the head of the country than in our own Washington. President Wilson has also been so fortunate in the past as to find a summer residence providing as similarly restful, inviting, and tastefully satisfying an environment in the house built by Mr. Charles A. Platt for the novelist, Winston Churchill, at Cornish, N. H. From these tasteful surroundings the President, by deciding to remove to the notorious McCall "mansion" in New Jersey, has jumped into almost the ultimate physical extreme of contrast possible in even the scrambled mess of domestic architecture extant in America to-day, of which probably no more

horrible example anywhere exists than this same McCall residence, already the unblushing recipient of nation-wide notoriety for its over-done architectural embellishment and its downright indecent bad taste.

So shocking is the contrast that almost one suspects this result to be the outcome of some particularly devilish and subtle Germanic (or Republican!) plot. If environment exerts any *real* influence on life, can this sudden change be regarded with equanimity by Mr. Wilson's fellow Americans, of whatever party? Can it be that even the President's judicial calm will be able long to withstand the warring architectural elements that will hereafter surround him during the Jersey dog-days? Can he remain content, level-headed, and serene, despite the jarring mental strain of confronting countless ill-assorted columns of divergent heights, breadths, thicknesses, and ornamentation; the impinging optical shocks continually occasioned by the whole fifty-seven varieties of towers, "outlooks," and pagodas; of cart-wheel balustrades and whirling arches; bulbous ornaments and gilded stucco; "near-marble" staircases and "art-glass" skylights, in all of which this dwelling glories and abounds? Has any one *really* counted the ill effects possible from this violent attack upon the health, strength, and mentality of our chief executive? Will he be able to resist the pulsing insistent psychology of an architecture urging always toward physical acts of war, arson, pillage, and profanity; toward "treasons, stratagems, and spoils"? Has this change perhaps been engineered by some Machiavellian and villainous political cabal, desiring to lead the administration still further afield from the narrow paths of grape-juice and continence, of peace and anti-suffrage? Is it proposed by these deadly yet insidious architectural means to transform the judicial temper of our present ruler to the ebullient nature of a predecessor — once removed? What says the *Farmer's Almanac*? "About this time look out for squalls!" Political hangers-on, constituents, and Jersey congressmen here take note. Cyclone cellars and broken fences will next spring become the prevailing political mode.

OUR September editorial was directed against the vice of restoration, under any conditions — and especially and particularly the adding of insult to injury in the press notices announcing that Germany was proposing to lay profane hands on those architectural memorials of past ages of civilization, already violated by her barbarian hordes, by presuming to "restore" Belgium's architectural landmarks under the direction of an official "city architect" of little fame and still more doubtful taste. Apparently color is lent to that statement by another recent "atrocious," chronicled in the following despatch:

"At St. Quentin, France, in the presence of the Emperor, the French municipal authorities, and the principal officers of the second army, there was dedicated a monument to German and French (!) warriors. The monument, built by Professor Wand-schneider after the Emperor's own design, stands in the new military cemetery."

This astonishing bit of "press-agentry" is dated as emanating from Berlin on October 27, this year of grace.

The overweening ambition of the Kaiser already has presumed to rule the art of his nation with a rod no more flexible than that he now extends over other and more thoroughly æsthetical lands. He has laid down the rules on which the Royal Opera was to be conducted; he has censored the operas of composers both present and past; he has approved some dramas and disapproved others; he is even supposed himself to have written certain performances, whose presentation he has then enforced. The architectural "competition" has been equally at his mercy. Those designs accepted by the official judges have been arbitrarily set aside, and the execution of designs by his "court architect," or preferred favorite, has been "commanded" instead. Nevertheless, the effrontery of the action registered in this despatch will leave other and freer nations somewhat aghast. Is it not one of those straws showing which way the wind bloweth? We know not how many monuments, built efficiently in granite and enduring cements, have been placed as Teutonic mile-stones in the war-hacked and bleeding soils still belonging to other, and yet unconquered, peoples. How many of these *Kaiserentwerfen* memorials will be found in existence a few years hence?

(From "The Brickbuilder")



Entrance Detail, House at Guilford, Md.
Edward L. Palmer, Jr., Architect

THE October magazines provide examples of domestic architecture of such number and merit as force everything else well into the background this month.

The Brickbuilder for September joins *THE ARCHITECTURAL REVIEW* — the first American architectural periodical to welcome and remain consistently appreciative of the best work produced by the modern continental school — by publishing an article by Irving K. Pond in appreciation of modern German architecture. Other articles treat of native woods for interior finish and Towers and Spires, second part. The plates include many houses. One at Annapolis, Md., by Parker, Thomas & Rice, of distinctly Southern plan, has an exterior that retains the same characteristics in details while employing others rather inharmoniously modern in type. The remainder, from Guilford, near Baltimore, include two by Howard Sill, and a large group by Edward L. Palmer, Jr., interestingly placed at a road intersection. We believe this group would have been better without the rather overpowering *Germano-Atterburyesque* roof; the details being interesting and successful. Some of the same architect's other small houses are even more pleasing, particularly that for Dr. Ames, a delightfully simple and direct treatment of the material. The imitative entrance feature, also over-large in scale, detracts from the house for Mrs. Gale; the same criticism applies to the McEvoy house, by Thomas Bond Owings — more successful on the garden side, where a simpler treatment of the plaster bays would have been a still further improvement. Mr. Sperry's contribution to this suburb suffers from the tile roof, entirely out of sympathy with the wall treatment in scale and texture, and inconsistent with design and material. Mr. Fowler's single dwelling is, on the other hand, entirely charming, the entrance fea-

Current Periodicals

A Review of the Recent American
And Foreign Architectural Publications

(From "The Brickbuilder")



House for James C. Fenhagen, Esq., Guilford, Baltimore, Md.
Laurence Hall Fowler, Architect

(From "The Architectural Record")



House for John W. Gary, Esq., Glencoe, Ill.
Frederick W. Perkins, Architect

(From "The Architectural Record")



House for William Balhatchet, Esq., Evanston, Ill.
Lowe & Bollenbacher, Architects

(From "Architecture")



Residence of R. H. Newberry, Esq., Grosse Pointe Farms, Mich.
Trowbridge & Ackerman, Architects

(From "The Brickbuilder")



Entrance Detail, House at Guilford, Md.
Edward L. Palmer, Jr., Architect

ture (in many ways similar to the Gale house) has yet a distinctive touch in its details, while in scale and grouping it is entirely harmonious with the composition and fenestration of the house front.

Turning to the October magazines, *The Architectural Record* deals with country-house architecture in the Middle West, on the Pacific Coast, and in the East, from three characteristically different points of view. The middle-western group includes Mr. Louis Sullivan's Babson house, Mr. Frank Lloyd Wright's own dwelling group, the E. W. Decker house, by Purcell & Elmslie (all thoroughly illustrated previously; and the latter republished in these columns in August, in the far less attractive guise in which the architects had chosen to first display their design to the profession), and some houses near Chicago by Tallmadge & Watson, George W. Maher, and other architects, among them being a "somewhat different" Evanston house by Lowe & Bollenbacher, and a house at Libertyville, Ill., suggesting some Eastern characteristics. Far too many, however,—as the two from Kansas City and one at Island Park,—are insufficiently studied, and, although perhaps representative enough of work from that section, would better be disregarded in the architectural press. A house at Madison, Wis., by George B. Ferry, is more successful, despite the use of classic porch columns in an otherwise Gothic design; and F. W. Perkins' house for John W. Gary, at Glencoe, is shown by one attractive view.

The Pacific-Coast section contains attractive photographs of the characteristic work of Greene & Greene; a couple of "somewhat Colonial" brick houses by Joseph S. Coté & Myron Hunt; Mrs. Russell's house at Hollywood, by Elmer Grey (previously published); and a group of rather pretentious Spanish-type houses at Point Loma by W. S. Hebbard. Mr. Hobart's Newhall house (also already illus-

(From "The Architectural Record")



House of Miss E. A. Watson, White Plains, N. Y.
Delano & Aldrich, Architects

(From "The Architectural Record")



House of George W. Bacon, Esq., St. James, L. I.
Peabody, Wilson & Brown, Architects

(From "The Brickbuilder")



Garden Front, House of James McEvoy, Esq., Guilford, Baltimore, Md.
Thomas Bond Owings, Architect
(From "The American Architect")



House at Germantown, Pa.
Dühring, Okie & Ziegler, Architects
(From "The American Architect")



House at St. Martins, Pa.
Edmund B. Gilchrist, Architect
(From "The Architectural Record")



House at Point Loma, San Diego, Cal.
Carleton M. Winslow, Architect
(From "The Architectural Record")



House at Altadena, Cal.
Reginald D. Johnson, Architect

trated) and Grant house are both surpassed by the simpler Ansel M. Easton house; while two houses by Reginald D. Johnson suggest interesting methods of composition. Willis Polk's Crocker house is over-imposing and classic in treatment, while Carleton M. Winslow's Dr. Foster house at San Diego is an unusual and pleasing grouping.

The Eastern section includes an attractive house at South Orange by Davis, McGrath & Kiessling; a familiar house at Wynnewood by D. Knickerbacker Boyd; a rather ponderous stone dwelling at High Bridge, N. J., by William Emerson; Albro & Lindeberg's thoroughly familiar Dows house, at Rhinebeck; a little brick house at Hartford by Smith & Bassett; Delano & Aldrich's Watson house (with its nearly impeccably composed servants range! — the structure otherwise appearing a little bare and over-economical of detail); the apparently incomplete Bartlett house, by Hewitt & Bottomley; and two or three minor examples, including a Colonial house in a charming setting, at St. James, L. I., by Peabody, Wilson & Brown.

Architecture continues its review of the Hispanic Society's "Spanish Rejeria," and the article on "The Fenestration of Factory Buildings." Besides Mr. Grant's nicely rebuilt Colonial Church, at Williamstown, Mass., the plates are given to exterior and interior photographs and some working drawings of Trowbridge & Ackerman's Newberry house, at Grosse Pointe Farms, Detroit; a rather ornate Georgian development that, on the terrace front, contains several details so exuberantly carved as to detract from its otherwise characteristic refinement, which also loses in repose on the entrance front from the over-close relation of window openings.

The last five issues of *The American Architect* prove far more interesting than usual. The issue of September 29 contains an article on

"Base Courses," and the plates show another of Messrs. Dühring, Okie & Ziegler's interesting Germantown ledge-stone houses, this one unusually rambling in type, along with an attractive plaster house at St. Martins by Edmund B. Gilchrist, and a brick house at Newark, N. J., that displays well-studied — if familiar — Colonial details.

The issue of October 6 publishes Eames & Young's Boatmen's Bank Building, at St. Louis, a type now already fairly familiar, and an article on door-knockers. The issue of October 13 illustrates the Sarah Morris Hospital for Children, by Schmidt, Garden & Martin, and the Cook County Hospital, at Chicago, Ill., with the view-point of the Superintendent, by Oliver H. Bartine. This issue is therefore a helpful presentation of some of the many sides of the hospital problem. The Cook County Building has no interest of design, exactly the reverse being true of the Oak Forest group, that, in a simple and direct manner, combines elements of the Chicago School with others that suggest — as in the view of the Tuberculosis Section — some of the simpler Italian villas. The children's hospital is a more compound urban structure.

The plates in the issue of October 20 show the Russell Sage Foundation Building, more interesting in reality than in this photographic illustration — largely because of its warmth of color. While the Foundation's predilection for a treatment so reminiscent of the warring Florentine factions is curious, yet the two library interiors are consistent, and their interest is again much emphasized in actuality by their color. Two sketches by Charles Barton Keen, of which the Spruance house is the more successful, are also printed.

An important feature of the issue of October 27 is the unusual architectural problem solved by Glenn and Bedford Brown, IV, in the new Q Street Bridge at Wash-

(From "The American Architect")



Tuberculosis section



Nurses' Home

ington, D. C. Another Chicago hospital by Schmidt, Garden & Martin, possessing its particular simplicity and serenity of scheme, is illustrated, along with an appropriate doorway, added apparently to an old house in Baltimore, by Laurence Hall Fowler. The Dudley Memorial Gate is reproduced to show how sadly it is at variance — in design, feeling, and in scale — with the other memorial and class features related to, and forming part of, the beautiful Colonial fence around the Harvard "Yard," that was started some years ago by McKim, Mead & White, and otherwise developed with consistency, refinement, and beauty for most of its length.

The October *Western Architect* publishes some of the really interesting architecture of the Norway Centennial Exposition, quite equaling the best work developed by the modern German school. The rather overstressed crudity of the Sweet residence at San Diego invites condemnation, while two houses by Dühring, Okie & Ziegler are presented as solutions of the narrow-lot problem. Pond & Pond's study for the Michigan Union Building is, as always, an interesting, individual, and frank architectural treatment of a carefully studied problem.

The Builder for September 7 contains some etchings of Eastern subjects, and imperfect photographs of Charles E. Bateman's rood screen in Walsall Parish Church, J. Olrid Scott & Son's St. John's Church at Oxted and All Saints' Church at Bourne-mouth. The issue of September 24 illustrates some amusing modern architectural bits from Valencia, and a charmingly informal villa at Johannesburg by Herbert Baker, with the same architect's South African Med-

(From "The Builder," London)

Proposed Church of the Holy Apostles, Leicester, England
Everard, Son & Pick, ArchitectsCook County Infirmary, Oak Forest, Ill.
Richard E. Schmidl, Garden & Marlin, Architects
(From "The American Architect")The Q Street Bridge, Washington, D. C.
Glenn Brown and Bedford Brown, IV, Architects
(From "The American Architect")Dudley Memorial Gate, Harvard University, Cambridge, Mass.
Howells & Stokes, Architects
(From "The American Architect")Sage Foundation Bldg., N.Y. City
Grosvenor Allerbury, ArchitectHouse in Berkeley St., London
Richardson & Gill, Architects

(From "The Western Architect")

Machinery Hall, Jubilee Exposition, Christiania, Norway
Henrik Bull, Architect

ical Research Institute. All Saints' Church at Goodmayes, by P. K. Allen, and a suburban house at Putney, by Williams & Cox, are published on October 1; and on October 8 three premiated designs for the Rathbone Street Area of the Liverpool Housing Scheme, of which that placed second suggests the most interesting grouping of units. The plates carry the measured drawings of St. George's Church at Edinburgh, attributed to the Brothers Adam, some interior painted decorations in a church at Aldermaston, Berks., and an act-drop in the New Empire Theater, at Cardiff, employing a restoration of the Acropolis by A. C. Conrade. A London street façade by Richardson & Gill indicates the extent to which Greek detail has already been modified to fit modern surroundings. The section on Civic Design is also included. On October 13 are republished some Canadian theaters from *Construction*, and Arthur Moore's new Head Office for the British Dominions' General Insurance Company, Ltd., the accepted design for the new Premises for the Plymouth Co-operative and Industrial Society, and an interesting sketch for the Church of the Holy Apostles at Leicester, by Everard, Son & Pick, all illustrated in the plates.

The October *English Architectural Review* contains illustrated articles on Puvis de Chavannes and his work; Tibaldi and Ricchini in the series of "Later Renaissance Architects" of Italy; the sixth part of War Monuments, illustrating Sacconi's great structure for Victor Emmanuel II; a large yet simple London house in the Greek influence by G. & A. Gilbert Scott, and some illustrations of Holland plastered work and examples of some recent English town planning.

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THIS month's leading article illustrates certain French period mantelpieces, comparatively little known to most American architects, but here published to provide new and suggestive models for mantelpieces of unusual types available in much new American country-house work. In addition, it might be pointed out that these illustrations provide an equally large group of unusual examples of iron craftsmanship in fireplace furniture and, occasionally, in the iron backs that are sometimes also shown. A secondary article accompanies some illustrations of Persian brickwork patterns of the sixteenth century, again selected for publication because of the recently awakened interest throughout the country in the employment of brick pattern-work in new and novel forms.

Our plates for this issue give the working drawings of the new Academic Building at Exeter, Cram & Ferguson, Architects, carried out in the Colonial manner, and accompanied by some exterior and interior photographs of the building. A few items of particular interest in relation to the structure are also indicated or shown upon another text page. Plate XVII in the Modern American Church Series, also issued in this number, is of unusual interest from the fact that it is a chapel built at Mr. Cram's country-place, in Sudbury, of local workmanship, using native New England field stone for the exterior, and utilizing several interesting pieces of church furniture in the interior, all shown in this photograph, by Mr. Buckley.

Our added plates this month show the interestingly unusual house recently built for Mrs. F. L. W. Richardson at Charles River Village, near Boston, by Richardson, Barott & Richardson, one of the houses in this section of New England illustrating the new



Vane on Academic Building, Exeter, N. H.
Cram & Ferguson, Architects

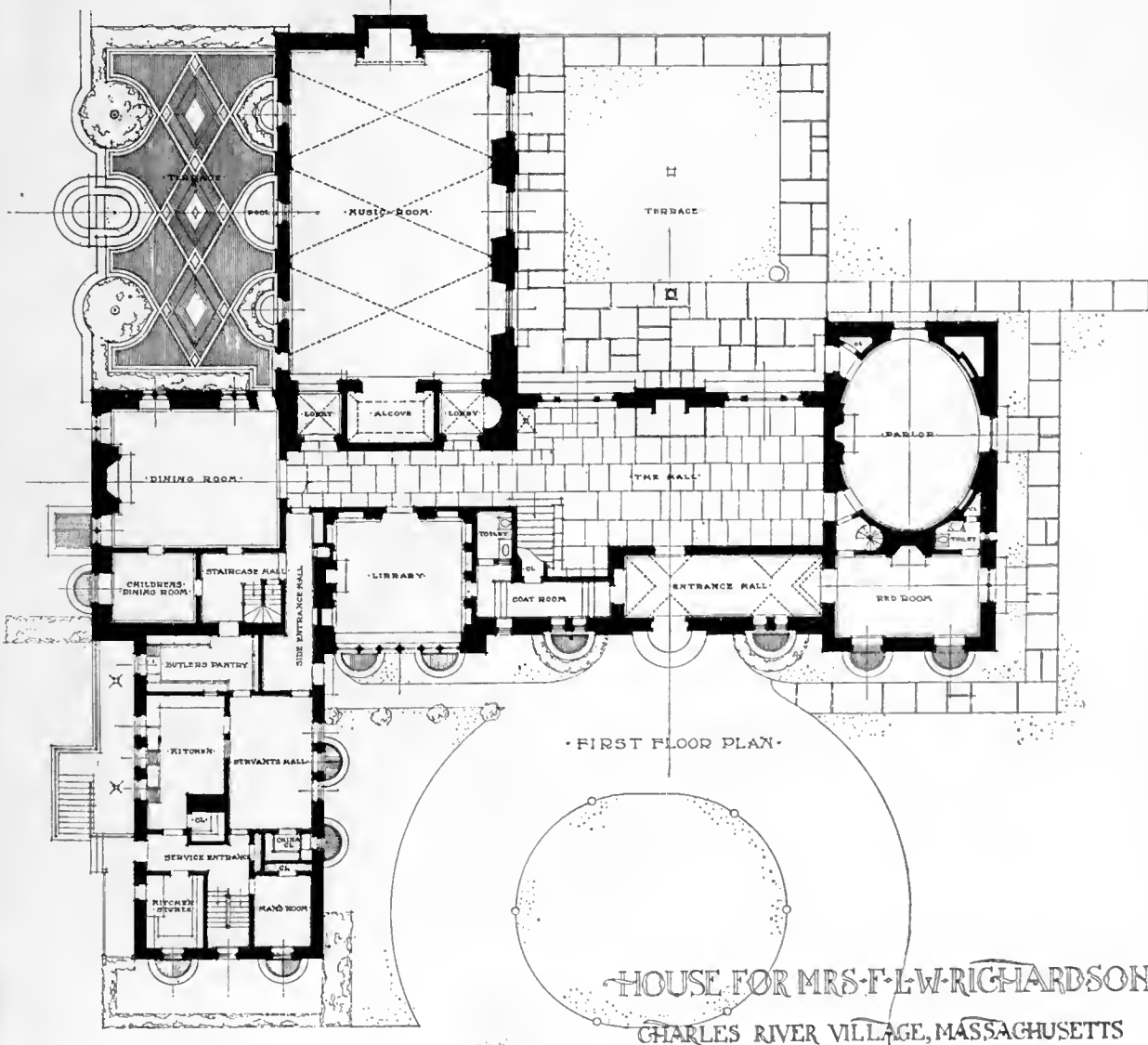
tendency toward a return to stonework as an appropriate material for dwelling construction; the more unusual because, while New England abounds in old stone walls and fields still filled with stones, little architectural use has been made of the material,—in domestic work at least,—partly because of its stubborn difficulties of density and scale. The majority of these stones being of granite composition, they are extremely difficult to fashion

and shape, and generally so large as to make them inappropriate to the scale of the small dwelling. It has, accordingly, been only within the last few years that our architects have shown any desire to grapple with the problem of using our field stones after a method that would be practical and architecturally appropriate as well. This house illustrates one handling of that problem, and the better to give our readers an opportunity understandingly to study the results obtained, we reprint in our line-plates the architects' drawings for the two principal elevations. The way in which brick trimmings have been combined with stone, and the simple yet untrammelled employment of both English casement and the more commonplace double-hung windows, are particularly worthy of attention.

Some of the interiors are equally informal, and unusually direct, in treatment. The hall is typical of a new sympathy for the "romantic" feeling in architectural design that is beginning to express itself in our American dwelling architecture. The hall and music-room possess, indeed, an attractive mediæval simplicity of aspect that is not the least of

their interest; and they provide, as well, examples of the use of old fragments of handicraft, borrowed from earlier times and an European setting, here to be employed in new surroundings. The garden of the house is shown in both its earlier and later stages—the former better illustrating the architectural outlines of the garden end.

The January issue will be given entirely to the illustration of Mr. John Russell Pope's recently completed Temple of the Scottish Rite, in Washington, the usual line-plates being accompanied by a great number of photographic half-tone plates, text illustrations, and a descriptive article; our publication being exclusive in the professional field.





JOHN WARD HOUSE
at Salem, Mass. Built in 1684

Words could not portray the lasting qualities of White Pine as graphically as this remarkable photograph. The exact date of the unpainted, weather-beaten siding is not known, but it is certain that the siding on the main portion of the house is from 150 to 200 years old, and stands now as originally built, with practically no repairs. The siding on the lean-to is of a considerably later date, but it will be noted that there is no appreciable difference between it and the siding on the main portion of the house. Both are in splendid condition today and good for service for many years to come.

Photo by Mary H. Northend, Salem, Mass.

IN every line there is one product that is recognized as pre-eminent. Among woods for home-building this position has for three centuries been accorded to

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The fourth number of the White Pine Series of Architectural Monographs, published bi-monthly under the personal direction of Mr. Russell F. Whitehead, formerly editor of "The Architectural Record" and "The Brickbuilder," will be mailed February first. The subject will be "Colonial Houses of the Middle and Southern Colonies," with article on the "Colonial Renaissance" by Frank E. Wallis, Architect.

If you are not receiving the monographs, and you feel interested in having them, kindly advise Russell F. Whitehead, 132 Madison Avenue, New York City, who will be pleased to furnish you with the fourth and all subsequent numbers.

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The Architectural Review

Volume III (Old Series, Vol. XX)

December, 1915

Number 9

Some French Period Fireplaces and Mantels

Principally from the Cluny Museum

By Stuart Bartlett

EVERY architect knows the difficulty of finding good models for French mantelpieces of any style other than the several rather well-known, but cumbersome, examples dating from the reign of Henry Fourth and the many really beautiful and familiar forms characteristic of Louis the Fifteenth and Sixteenth periods. This is the more unfortunate because so many of these unknown French examples are quite as picturesque and available for many purposes to-day as any of the Italian Renaissance fireplaces that are so much more frequently employed by the architect — merely because they are more familiar, through previous illustration. Many of us also forget that the Cluny Museum, in Paris, possesses an unusually fine collection of French fireplaces, particularly of the fifteenth and sixteenth centuries, and therefore any attempt to illustrate material of this kind would be most incomplete did it not include the major portion of these beautiful and historic chimneypieces among its illustrations.

In the fifteenth-century group the Cluny collection contains a pair of stone mantelpieces from Mans that are exceptionally available as models for architectural use in some of the picturesque informal club, studio



Carved Wood Chimneypiece in the Château de la Caze



Stone Chimneypiece, Time of Henry II, in the Museum of Decorative Arts

or country house interiors coming into vogue in this country. While similar in design, one presents a characteristic over-mantel treatment easier of successful employment than the decorated and painted plaster of its companion, while not the least value of both consists in the fact that they are suitable of employment without the over-mantel, or with the long sloping plaster hood that is equally characteristic and appropriate to the period they represent.

Of course, it happens that some of these fireplaces are of so elaborate a treatment, and were originally executed at so large a scale, as to make them unavailable for ordinary employment — except under unusual conditions. This will probably be the case with the two other fireplaces illustrated

from the Cluny collection, — the one from a house in Rouen, indeed, being of a fairly well-known type, while the mantel from Troyes is both less familiar and more adaptable to American conditions of employment; particularly with the over-mantel and upper portion eliminated. Something of the same criticism of over-elaboration may apply to the two fireplaces from Châlons-sur-Marne, by Hugues Lallement, where again elaborate carving has entered



15TH CENTURY MANTELPIECE FROM A HOUSE IN MANS
NOW IN THE CLUNY MUSEUM



15TH CENTURY MANTELPIECE FROM A HOUSE IN MANS
NOW IN THE CLUNY MUSEUM



16TH CENTURY MANTELPIECE FROM A HOUSE IN ROUEN
NOW IN THE CLUNY MUSEUM



16TH CENTURY MANTELPIECE FROM A HOUSE IN TROYES
NOW IN THE CLUNY MUSEUM



Chimneypiece from Châlons-sur-Marne, by Hugues Lallement
Now in the Cluny Museum



16th Century Chimneypiece from Châlons-sur-Marne, by Hugues Lallement
Now in the Cluny Museum

into the design — particularly the one at the left, with the masterfully modeled figures, that make it one of the notably beautiful examples of its time; but these two superb pieces are also capable of adaptation and employment without the overmantels. Even more beautiful and unusual is the chimneypiece dating from the beginning of the period of Henry the Second (the bases of the supporting columns have apparently been lost in its peregrination from its original location to the Museum of the Decorative Arts, where it is now displayed), and again the great beauty and delicacy of the carving, while characteristic and distinctive, does not prevent its intelligent adaptation and simplification for modern conditions by an appreciative and skilful designer.

At a little later period there was produced a type of mantel-design that, while not quite as refined — and certainly not as familiar — as the three or four favorite chimney-pieces of Louis the



Kitchen, Hôtel Dieu, Beaume



Kitchen, Hôtel Grunthuse, Bruges

Sixteenth's time, is nevertheless equally susceptible of dignified and appropriate use in modern work. One of these characteristic shapes is still shown in its original location in the simple dining-room of the Convent of the Grande-Chartreuse, and a somewhat more elaborate example of the same type is illustrated, at a larger size, from a house at La Rochelle. Both these, particularly the simpler example, are capable of direct employment under American conditions of dwelling-design, and therefore possess a particular value to the practising architect.

Appropriate and picturesque examples are also to be found among the vanishing kitchens of old France, although it has become extremely difficult to find instances of the smaller and more domestic farmhouse examples in a sufficiently good state of preservation to make their photographing possible — though from those traces that may be found occasionally in the smaller French villages it seems cer-



Dining-room, Convent de la Grande-Chartreuse



Living-room Mantel, House of Maire Guittou, La Rochelle

tain that, at one time, the French countryside abounded in naïvely beautiful fireplaces of the sixteenth and earlier centuries, now wholly or partially destroyed in the gradual process of the modernizing or "improving" of native living-conditions. So we have to turn to the two large kitchens that were, till recently, to be seen in the hotels at Beaume and Bruges, for indications of a large, but very informal and picturesque, type of French fireplace.

From the period of Francis the First we have the well-known chimneypieces in the Château Blois, generally a bit awkward and blocky in treatment; and only in the fireplace in the Library of Catherine de Meaux do we find a mantel that from its modeling and treatment alone would, without decoration, be available for modern purposes. Besides these types there is a group of French mantelpieces even more difficult to discover, of which one especially interesting example is illustrated in the chimneypiece in the Château de la Caze, a mantel of wood, beautifully proportioned and, as in this case, often elaborately carved.

These photographs also show some

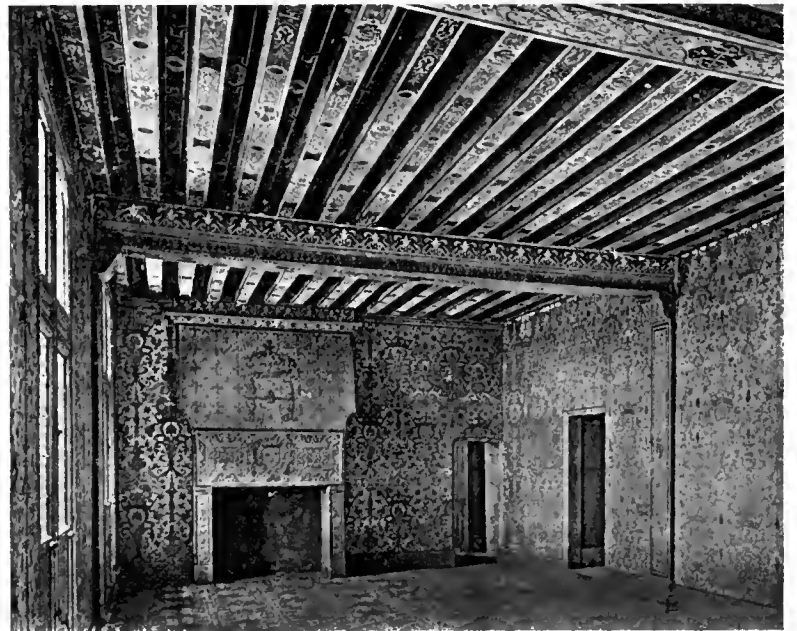
examples of unusual fireplace furniture, — iron backs, fire-dogs, and andirons, the latter especially varying from a simple pattern such as now occupies the fire opening in the Château de la Caze to such elaborate and beautiful Gothic irons as occur in some of the other illustrations. Not the irons alone, but spits and other pieces of fireplace furniture are also to be seen, particularly in the two old kitchens, where the new ranges and ovens have evidently not entirely supplanted the old methods; just as, in Oxford, the cooks still preferably use the old spits worked by louvers in the chimney-throat above, and only depend upon the new-fangled gas ovens when food has to be prepared rapidly for impatient diners! Of the andirons, the majority are probably simpler than the furniture originally used in these fireplaces. The iron backs, on the other hand, are more nearly in accord with the mantels in nearly every case, and where not actually a part of the old chimneypiece, they are always of a corresponding period. The accompanying spits and bellows, saucepans and kettles, of copper or wrought iron, also suggest examples of other crafts of interest in America to-day.



Library of Catherine de Meaux, Château Blois



Chamber of Catherine de Medici, Chateau Blois. Wing of Francis the First



Room where the Duke of Guise Was Assassinated, Château Blois

Some Sixteenth-Century Persian Brickwork

And Its Suggestions for Modern Use

With Illustrations from Mr. J. Parker B. Fiske's Collection

LITTLE consideration is ordinarily given to the brickwork of the Orient; but in the recent revival of interest in brick texture and its accompanying attributes of pattern, it must happen that attention will be directed again to little-known or forgotten Oriental examples, such as those found, for instance, in Persia. Located so near the old clay beds along the Euphrates and Tigris rivers, where probably the first bricks in the history of the world were manufactured, that country provides instances of brickwork of such beauty of pattern and skill of arrangement as are acquired only through centuries of association and employment. The patternings are often of a complexity indicating the greatest craftsmanship on the part of the builders. This is true, in a structural sense, of the groined arches (shown by a simple example in Fig. 1) built of brick and, probably, afterwards plastered; making, in the more stubborn burned-clay material, much the same intricate shapes as are found in the plaster ceilings of the Alhambra.

In undertaking any study of the Persian use of brickwork in wall-surface patterns it must be realized how these people have thought for centuries along these lines, and developed very similar patterns, in a near-allied art. Some of the oldest Persian tiles show the most complicated pat-

terns and interlacements of conventional ornamental forms; and thus the game of "pattern" making and ornamental "repeat" has been familiar to men of that race from their very cradles. It was therefore all the easier for them to utilize the cruder brick unit — often with tile as a portion of the pattern or inlay (as in Fig. 2) — for elaborate wall-surface patterns at larger scale.

To make brick patterns similar to these Persian examples it is not necessary to require bricks of any new or unusual proportions. All these patterns — and many more — have been accomplished with ordinary bricks. Even when a square header-shape is found, as in Fig. 4, the two inch or two and one quarter inch square brick piece can be made of a clipped header; or a small square tile can be set into the wall to accomplish a similar purpose, particularly if it is desirable to add color interest to the texture and patterning of the panel.

In Fig. 1 the builder has employed a brick diaper pattern of peculiarly Persian character. Whereas diagonal lines of stretchers are used in the usual manner, the diagonal squares in between are ornamented with a pattern that may well have been developed from the Oriental alphabet. It is not a diaper pattern familiar from

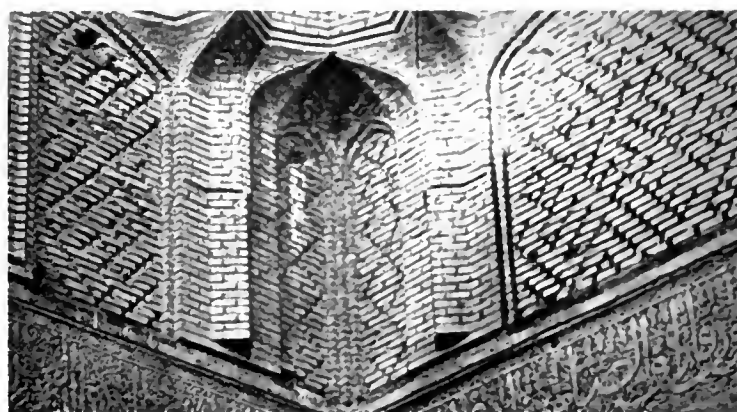


Fig. 1. Detail of Wall Angle, Recessed Doorway, Principal Mosque, Masjed Djuma, Veramid, Persia

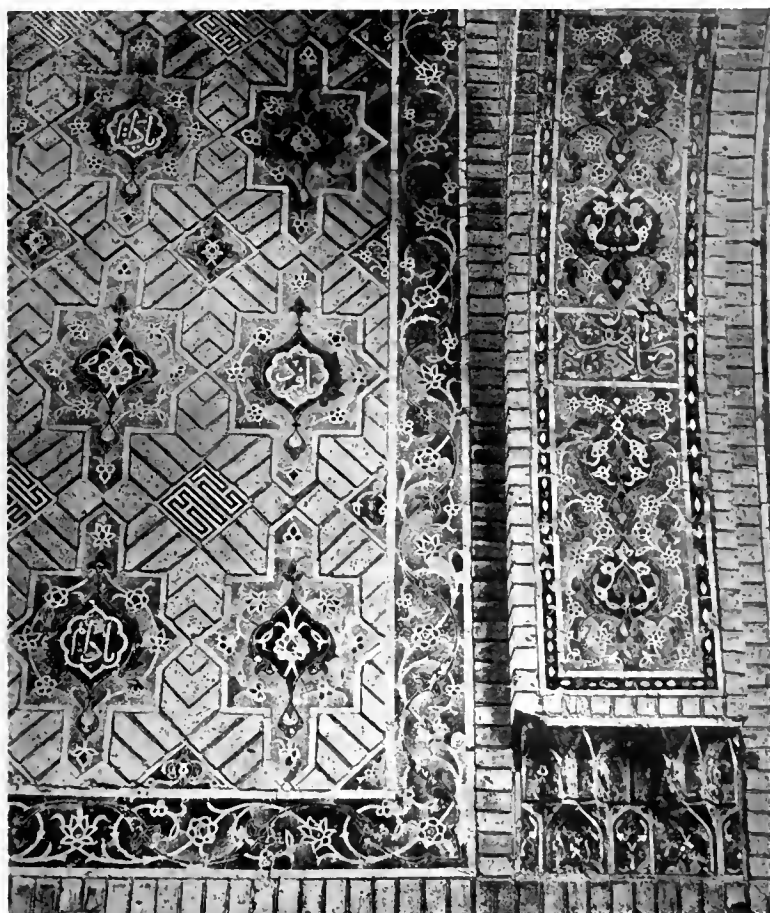


Fig. 2. Detail of Wall and Arch over Entrance Gallery, Blue Mosque, Tebriz, Persia

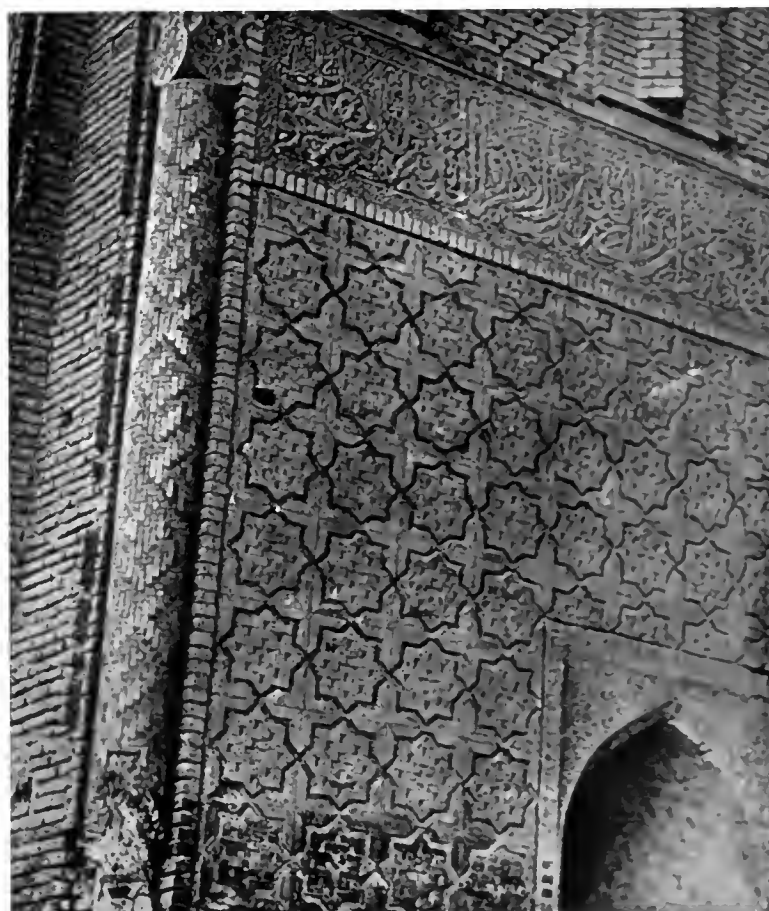


Fig. 3. Detail, Side Wall of Recessed Entrance, Mosque of Masjed Djuma, Veramid, Persia

European and English precedent, and it is not made by headers of a color different from the stretcher brick faces; but, in this case, altogether by means of a deep, wide, upright *joint* between the stretcher ends, thus obtaining a definite shadow, building up into the pattern desired. This method of treatment is, by the way, a favorite of the Oriental mason. Sometimes he depends upon the recessed joint face alone to obtain his effect. At other times he makes assurance doubly sure by inseting a dark-colored brick or tile to emphasize this pattern (Fig. 3), so, perhaps, even adding a little subdued color luminosity to the shadows.

This use of the recessed joint is shown extremely well in Fig. 3, where the pattern is definitely brought out in this way; and the star figures are also given surface texture by the wide, sunk, upright joints indicated above. Figs. 1 and 3 are, by the way, portions of the same wall surface. The lower part of Fig. 1 may be seen in the upper right-hand portion of Fig. 3. In Fig. 2 is indicated a somewhat similar pattern, in this case the brick being inlaid with tiles; the particular effect being obtained by concealing certain joints and emphasizing others. The conventional Persian letters, referred to on Fig. 1, are here found on the small square tiles set diagonally into the brick figures.

The Persian workmen's true refinement and feeling for the form and uses of their material become evident at the borders and corner angles. In both Figs. 2 and 3 this use of the brick header (or square) is important, because it allows of the joints (in *all* brickwork the joint is always of equal if not even of more importance than the burnt clay unit itself!) separating the square header from the boundary lines of both panels, to architecturally frame the corner angle with a clear definiteness and precision not otherwise to be obtained. In Fig. 2 a narrower course of squared bricks (such as could be obtained by clipping a brick for a course "closure") is shown on the margin of the arch soffit.

In Fig. 4 an eight-inch brick face with a mitred angle is used for a border around the smaller panels at the top of the picture, differently handled at the intersecting eight-inch borders just below. Note the similarity between the patterns filling the two

square panels (different, it should also be noted, in each panel!) and the adaptation of one of these identical patterns to the wall border around the larger panel above. It is true that a square unit, conforming to the regular stretcher height, performs an important part in this pattern; and it may well have been that it was either a special brick, made with a two-inch or two-and-one-quarter-inch square head in the different colors necessary to pick out the pattern,—as in the Lotos Club or the Madison Avenue Church in New York,—or it might also have been a small tile. One of these patterns was used in a house built of tapestry brick at Oyster Bay by Carrère & Hastings several years ago.

Figs. 5 and 6 both contain suggestions for modern brick employment. In Fig. 5, while the principal pattern is typically Oriental, yet the simplicity with which it has been developed and repeated, by the direct use of herringbone brickwork in two colors, depending upon occasional panels of horizontal herringbone—in alternation with the upright—to produce the pattern, is most ingenious in idea. Above the tile cornice is a typically European diaper pattern, here employed as a band; another patterned band of differently colored stretchers and headers; and, finally, over the apex of the mausoleum, the European diaper pattern reappears, with a different handling, and so skilfully worked out as entirely to conceal the difficulties of working it into a rounded surface, decreasing in radius with each course.

In Fig. 6 the recessed upright joint between brick stretchers to develop a pattern or texture again appears. Its textural use shows in the horizontal panel glimpsed through the shrubbery at the left; while its possibilities for pattern occur in the Greek fret or swastika arrangement paneling the wall around the doorway. The brick stretcher, laid with a close joint in an elaborate and intricate wall pattern, is also here shown. The panel over the door, the large wall surface at the right, the smaller horizontal panel above the inscription,—all indicate these possibilities. Even the inscription is made of brick; the recessed surface between the letters, the larger surfaces between the bricks in the wall pattern, and the panel above the lettering, being surfaced either with cement or colored tile, according to the effect desired.

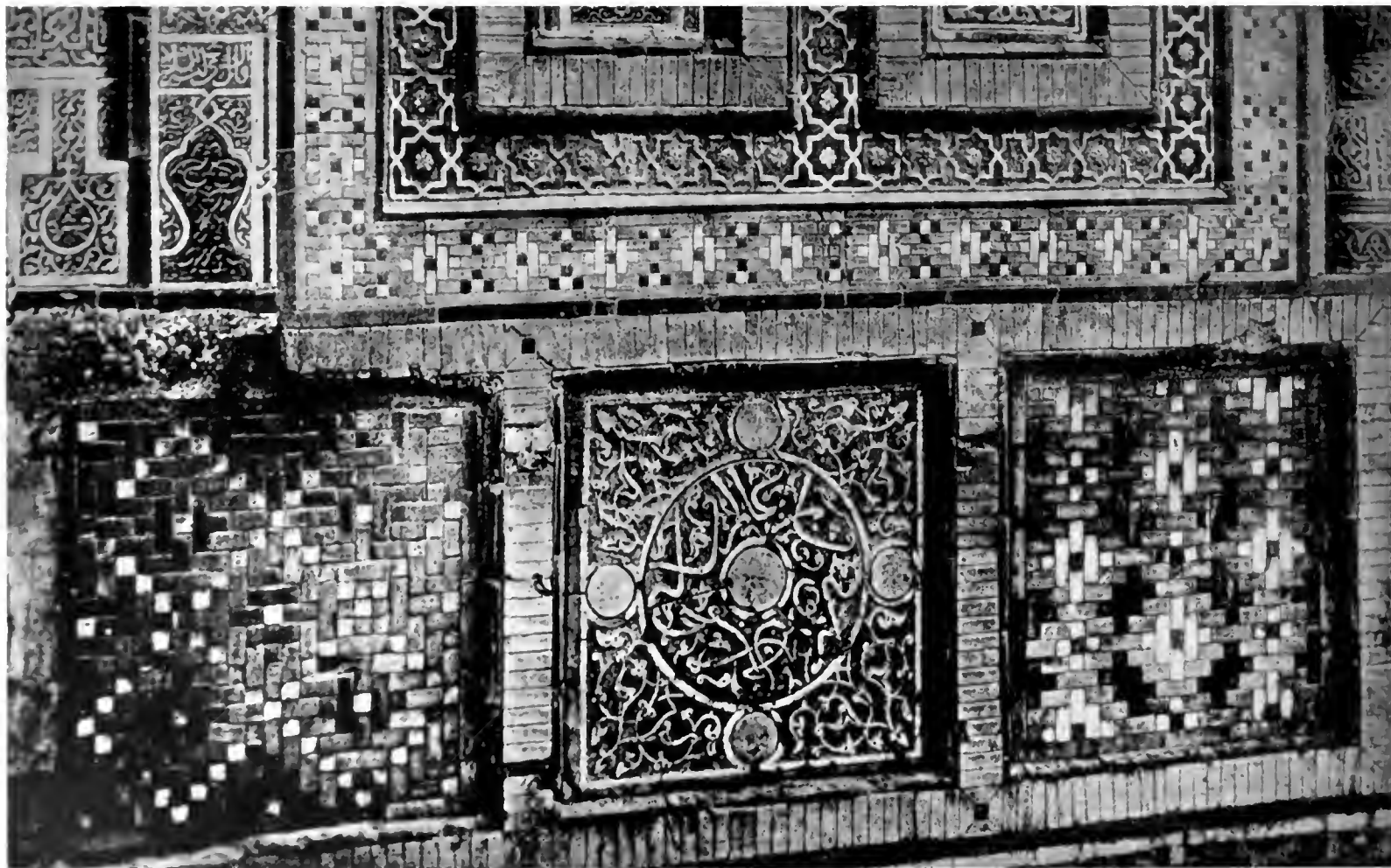


Fig. 4. Detail, Lower Part of Wall Panel, Interior of Emir Schwesher Timurs Mausoleum, Samarkand, Persia

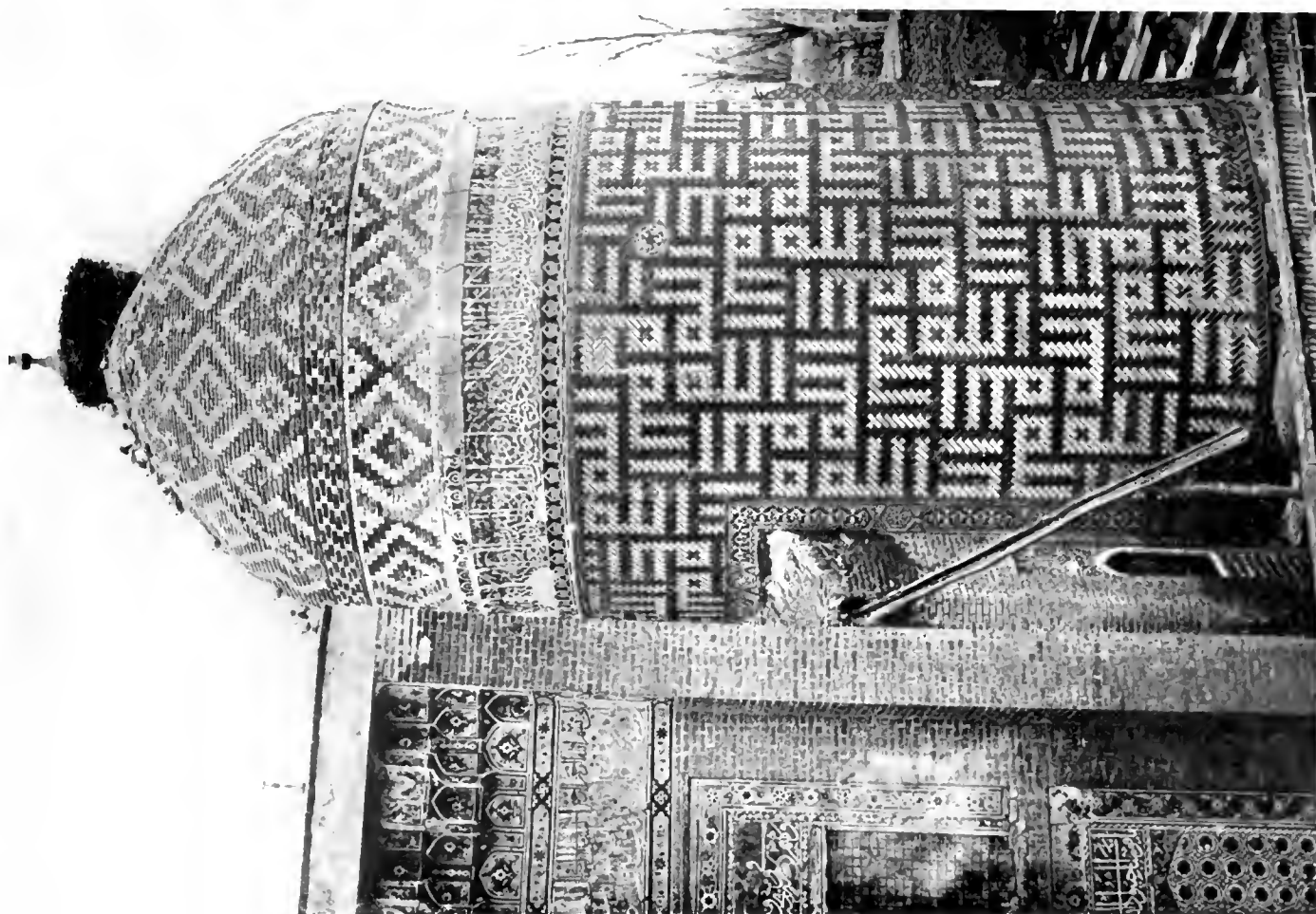


Fig. 5. Tomb Heilegin, Mosque of Schrech Safi, Ardabil, Persia

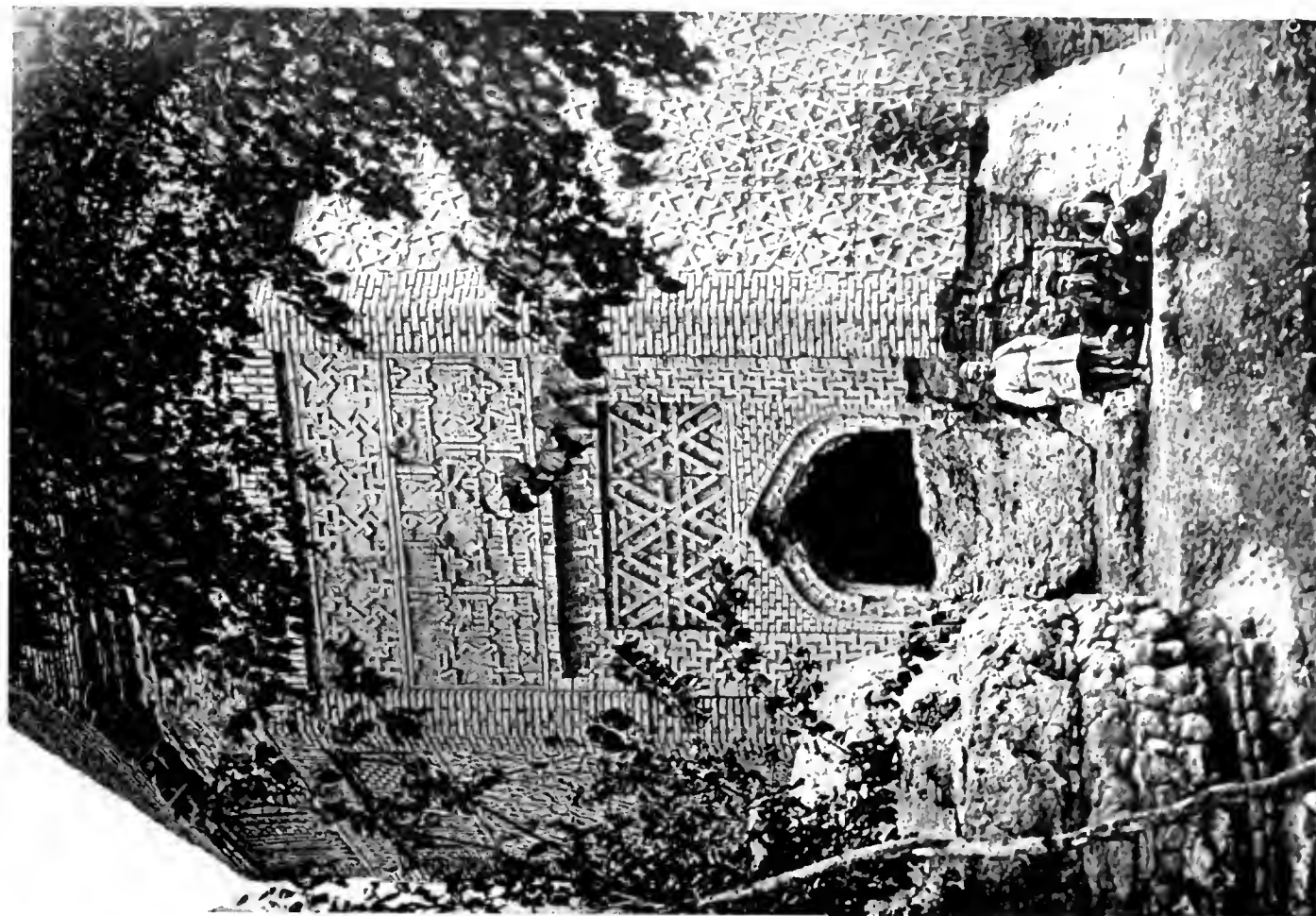


Fig. 6. Mausoleum of Jusul-Ibn-Kutajir, Nachtschwan, Persia

The New Academic Building at Exeter Academy

Exeter, N. H.

Cram & Ferguson, Architects

THE new main building at Exeter Academy replaces one which was burned, shortly after the close of the academic year, on July 5, 1914. This building had replaced a still earlier structure which was also destroyed by fire, in December, 1870. The Academy authorities decided that the new building should recall, in so far as was possible, this older building, which — built in 1794 — was of a sufficiently pleasant Colonial type, and fitted into the revived Classical tradition followed in the structures lately built at Exeter. Although of course the new building — built of brick where its predecessors had been of wood — could not be a copy in any close sense of the old, in theory, at least, the central motive, with its cupola, is consciously intended to be somewhat reminiscent of the earlier Colonial structure.

In the new Academic building most of the rooms are recitation and conference rooms, with one large study-hall and one lecture-room. The architectural feature of most importance in the interior is the chapel, about seventy feet square, which is placed upon the second floor, occupying the whole of the central portion of the building under the cupola, and will seat about eight hundred persons. The ceiling is somewhat elaborately treated in plaster, with a shallow dome in the center opening into the cupola above. At the back there is a stage twenty-eight feet long by thirteen feet high, with a recess left for an organ, which has yet to be provided. One of the smaller second-story rooms has been paneled throughout in wood, in a simple, late eighteenth-century style, and is used as a faculty room. The furniture for it was also especially made.

Unlike any of the preceding buildings, this new structure is built of concrete reinforced with iron, and hollow-tile block partitions, to make future resistance to fire more certain and the building more permanent. The building faces south, and it covers the sites of both the second and third buildings (the very

earliest academic structure, used from 1781 to 1794, was a simple Colonial dwelling, which has been removed and is now in use as a private residence on upper Front Street). The exterior is built of local water struck brick, with trimmings of white Vermont marble, including the cornice. The window-frames are of wood painted white, and the roof is covered with slate. The lantern, taking the form of an octagonal copper-covered cupola, painted white, was suggested by the cupola on the second building, although it is here given rather different proportions in due relation to the larger and more extended structure of which it forms a part; while the domed cupola roof is surmounted by a weather-vane of a full-rigged ship, executed in copper, and very carefully modeled after an old vessel, a reproduction of which is shown upon another page. Besides the exterior, marble is used also upon the interior for the entrance steps, a considerable portion of the interior halls and vestibule, and the main stairways.

The color-scheme has been throughout restricted to simple restful Colonial tones,—buff, gray, and green are used in most of the rooms,—while the Chapel walls and ceiling are tinted in a combination of light gray contrasted with a pinkish tone. The basement, above the ground level at the rear, contains additional offices, lavatories, and space for the customary machinery.



Second Academy Building
(Built in 1794. Wing added in 1822. Burned Dec. 17, 1870)



Interior of Dome and Ceiling of Chapel

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PLATES

PLATES LXXV.—LXXX.—NEW ACADEMIC BUILDING, EXETER, N. H. (PLANS, ELEVATIONS, SECTIONS, DETAILS, AND PHOTOGRAPHIC VIEWS) — CRAM & FERGUSON, ARCHITECTS.

PLATE LXXXI.—HOUSE FOR MRS. F. L. W. RICHARDSON, CHARLES RIVER VILLAGE, MASS. (ELEVATIONS)—RICHARDSON, BAROTT & RICHARDSON, ARCHITECTS.

PLATE LXXXII.—NEW ACADEMIC BUILDING, EXETER, N. H. (PHOTOGRAPHIC VIEWS) — CRAM & FERGUSON, ARCHITECTS.

THE Forty-Ninth Annual Convention of the American Institute of Architects, held in Washington, December 1, 2, and 3, 1915, will be recalled as one given to routine convention business, rather than to the discussion of professional problems or to the social intercourse and inspiration possible from the gathering together of such a representative group of architects, coming from all sections of the United States. In the latter directions particularly this convention was far less fruitful than many of its predecessors, partly from the fact that, because of the crowded conditions of the hotels of the Capital, those attending were necessarily scattered around among various hotels and clubs, and the meetings being held at a spot so distant from all the hotels, it naturally resulted that the delegates became scattered, and congenial groups did not easily get together for luncheon, or other meals — except by prearrangement. Thus were lost to the delegates some of the most memorable and helpful experiences associated with other conventions.

In the crowded program there occurred too little opportunity for the consideration or discussion of topics related to architecture as a Fine Art, and it was probably a natural result that the convention was attended by comparatively few members of the profession outside of the appointed delegates (about one hundred of the latter being present, barely enough to completely carry the votes of their organizations, by proxy or otherwise) — the exceptions being those resident in the locality, or coming from near-by cities, where it was easy to run down for one or more of the sessions. Even among the delegates a regrettable number left immediately after casting their ballots or hearing the reports of those committees in which they were particularly interested. A great number left after the session on Education, and consequently many Chapters were not represented in the extra ballot on the last day to settle a tie vote for the Directors.

Of the formal sessions, the session on Education (where much time was lost — even more than usual — on account of the length of the committee's report) brought out much interesting discussion, and registered overwhelmingly the desire of the profession for the separation of the departments of architecture from the schools of engineering — an awkward and undignified combination now existing in most of the colleges where architecture is taught; a situation that seems most illogical.

A large part of the time of the convention was given to the

discussion of the problems presented by the Committee on Chapters, which discussions centered around what should be done with the class of individuals that now exist as members of local Chapters, but do not (for one reason or another) seem to want to realize their opportunity of becoming full-fledged members of the Institute. The abolition of this class was evidently desired; but there seemed to be no unanimity of agreement as to what method of handling that problem would satisfactorily meet conditions in the various Chapters. The truth of the matter seemed to be that the situation was so altogether different in the western (and smaller eastern) cities from the problem as it was viewed in the larger and more prosperous building centers that, finally, all endeavor to settle the question this year was abandoned. A new Committee on Membership was appointed from among the Chapter representatives there present, and that committee began its sessions on the last days of the convention in order to prepare to meet the objections raised this year by the time the next convention is assembled! The convention therefore took no action on the new Constitution or By-Laws — in so far as such action would affect this class of membership — except to pass certain resolutions making it possible to omit initiation fees and examinations until the next convention in the case of all those individuals who could be recommended for advancement to Institute membership by their local Chapters, — action taken in the apparent hope of thus absorbing into the Institute a large proportion of this difficult class of membership before this question would again come up for discussion next year.

In spite of the full program one question of real vitality came to the front again and again during the convention for discussion from the floor, and that question was the one dealing with the vital problem of publicity or "advertising" as it affects the individual architect, the Institute, the public, and the profession. In spite of the great importance of this question it received little true consideration from most of those in active control of the convention; and a motion to strike out the word "advertising" from the Canon of Ethics (where it now reposes in the midst of a group of far more heinous professional crimes) finally failed of passage on the last day. It would seem, however, that the problem has been this year so stressed that, another year, the convention can hardly ignore its full consideration.

Of all the sessions the one that seemed of most interest to the greatest number of delegates present was the session on City Planning; and this was true despite the fact that much of the material presented at that session was already in the nature of a thrice-told tale to most members present. Nevertheless, as the single session given to the discussion of the profession of architecture in its larger outlook, it evidently helped meet this craving of the individuals present, and so satisfied them in a way that none of the formal business sessions succeeded in doing.

It is to be hoped that more sessions of this type will be planned for the next convention, as otherwise it is doubtful if the convention will serve its most important purpose of bringing members of the profession together for informal acquaintance and the discussion of important factors in their practice of the profession of architecture as a Fine Art — an aspect nearly ignored this year. This will next year be all the more necessary, as portions of the By-Laws passed at this year's convention will permit of a still smaller proportion of delegates carrying the proxies of the various Chapters; and this will undoubtedly mean a still smaller representation, — unless the program of the convention is so planned as to appeal to individual members outside those strictly delegated as officially representing their various Chapters, and carrying voting-power in regard to the business that must, of necessity, form its due part of each year's sessions.

It should also be arranged — now that the advance printing of committee reports would make their previous circulation easily possible — that these delegates should be instructed, in advance, as to the desires of their Chapters. At present the convention registers less the will of the Institute — or the average of opinion of that portion of the profession that it represents! — than the individual opinions of those present; altogether too small a group even to be truly representative.

(From "Architecture")



Fountain, Rockefeller Garden
W. W. Bosworth, Architect

THE relation between "scene painting" and "architecture" is perhaps not obvious to most practitioners. Nevertheless the architectural illustrations upon this page suggest some of the picturesque and romantic appeal essential to stage decoration, and also essential to architecture, when it is desirable to interest the public along that same line of approach. Of course, to obtain any such effect requires the utmost sympathetic development of the natural surroundings, without which the most carefully studied and conscientiously handled architectural design can never begin to realize its possibilities of attraction and appeal.

Architecture for November, in reproducing some attractive photographic details of Mr. Bosworth's Rockefeller Garden, at Pocantico Hills, does much to bring out this thought in this month's magazines. These views show the natural growth in an advanced state of development, so ably supplementing the appeal of its architectural elements. The review of the book describing Spanish Grilles still continues as this magazine's leading article, this being the fifth instalment; followed by another, on the fenestration of dwellings, with illustrations, including a detail of Messrs. Trowbridge & Ackerman's Pratt house (published in *THE ARCHITECTURAL REVIEW*, January issue of 1914), though unfortunately no credit is given to the designers of the structures reproduced; this is also true

Current Periodicals

A Review of the Recent American
And Foreign Architectural Publications

(From "Architecture")



East Terrace, John D. Rockefeller Garden, Pocantico Hills, N. Y.
W. W. Bosworth, Architect

(From "Architecture")



East Terrace Steps, Rockefeller Garden
W. W. Bosworth, Architect

of the several text pages given to "The Architect's Scrap-Book." Mr. John H. Phillips' dwelling at Tuckahoe, N. Y. (which has been previously illustrated), is shown, along with another house (here credited to Ford, Butler & Oliver), also previously published, either in this, or its earlier, incarnation, by Delano & Aldrich. The plates are given to Darling & Pearson's Banking Building for the Dominion Bank, at Toronto, Canada; Mr. Harrie T. Lindeberg's Corn Exchange Bank, New York (already illustrated and recently reviewed in these columns); McKim, Mead & White's new addition to the Harvard Club in New York, showing the 45th Street façade, unfortunately rather jumbled in effect, the new dining-room and the old, now rearranged as a lounge; and a school at Albany, considerably below the average standard now established for school-house architecture in this country.

In the Parrish Museum, at Southampton,—published in the November *Architectural Record*,—Mr. Grosvenor Atterbury has produced an unusually successful and interesting bit of design, Italian in character, but principally successful because of the treatment and texture of the brickwork, which is based upon laying extremely rough bench brick in Flemish bond composition, but showing courses of $3\frac{1}{2}$ x 8 inch brick surfaces alternating with upright headers. This arrangement, contrasted with the brick laid in the more usual manner on the arches, belt courses, etc.,

(From "The Architectural Record")



Parrish Museum, Southampton, L. I.
Grosvenor Atterbury, Architect

(From "The Western Architect")



Men's Gymnasium, Leland Stanford, Jr., University, California
Bakewell & Brown, Architects

(From "The Western Architect")



Coronado School, Coronado, Cal.
Quayle Bros. & Cressey, Architects

(From "The Brickbuilder")

and aided by the exceptionally rough texture of the brick, results in an unusually distinctive and successful architectural effect. Mr. D. Knickerbacker Boyd's development of the large estate for Charles S. Walton, Esq., at St. Davids, Pa., is another unusual problem, and one that has been developed in a novel and picturesque manner, employing stone so rough and irregular that the jointing nearly obscures the stone surfaces, which break through at irregular intervals, producing a rough texture and color effect on the wall surface. Cement is employed for most of the mouldings, with occasional brick courses. A large garden patio, garage, gate-lodge, pump-house, and log cabin form parts of the estate. The interiors hardly seem to be as successful, or possessing of as pleasing novelty, as the exterior of the buildings. Mr. John J. Klauber writes of moving-picture theaters, illustrated with plans and sections of theaters in Philadelphia by Stearns & Castor; at Ridgewood, N. J., by Davis, McGrath & Kiessling; and Ingalls & Hoffman's Neighborhood Playhouse in New York City (the latter proving to be — inside, as well as out — a rather close duplicate of The Little Theater they designed for Mr. Ames). An article on the design of the marquise, by John T. Fallon, is accompanied by text illustrations, and Mr. Denivelle writes of the texture and color of the Panama-Pacific Exposition Buildings, with illustrations showing the simulation of the Roman travertine stone. Mr. Glenn Brown contributes personal reminiscences of Mr. McKim; and some rather crudely drawn etchings of the Brooklyn Bridge are also shown, along with an illustrated editorial note on the outcome of the competition for the entrance to Schenley Park, at Pittsburgh.

The *Western Architect* publishes Quayle Brothers & Cressy's Coronado School, in California, which, despite its somewhat over-fanciful design, is nevertheless interestingly suggestive for its picturesque, and even almost romantic, elements. It hints at the most *un-Puritan* possibility of making the school more appealing to the scholars from a more vivid attraction possible in its architectural handling! Bakewell & Brown's gymnasium at Leland Stanford, Jr., University also contains some-



Gilman Hall, Johns Hopkins University, Baltimore, Md.
Parker, Thomas & Rice, Architects
(From "The Brickbuilder")



Engineering Building, Johns Hopkins University, Baltimore, Md.
Joseph Evans Sperry, Architect
(From "The Brickbuilder")



Addison School, Cleveland, Ohio
F. S. Barnum and W. R. McCornack, Architects
(From "The American Architect")



Nurses' Home, Municipal Tuberculosis Sanitarium, Chicago, Ill.
W. A. Otis and Edwin H. Clark, Architects
(From "The American Architect")



Lincoln School, Providence, R. I.
E. B. Homer, Architect
(From "The American Architect")



Cossitt Memorial, Colorado College, Col.
Maurice B. Biscoe, Architect

thing of the same feeling, but unfortunately suffers from the insufficiently related composition of some of the major elements composing the design. Several houses by Victor Andre Matteson contain certain elements of the English and "Chicago" Schools, rather unusual to find in combination.

The October *Brickbuilder* continues the articles on native woods for finish, and modern German architecture, as well as including others on the illumination of the suburban house, the new T-Square Club Building at Philadelphia, and the acoustics of auditoriums. The illustrations include some new buildings at Johns Hopkins University, — Gilman Hall, by Parker, Thomas & Rice, and the Mechanical and Electrical Engineering Building, by Joseph Evans Sperry; a new Y. W. C. A. Building at Newark, by George B. Post & Sons, where the characteristic unstructural brick header treatment first developed by McKim, Mead & White in the Colony Club in New York (a building with extremely delicate Colonial detail) has here, with utter lack of regard for its innate refinement in scale, been employed with the utterly anachronistic and out-of-scale classic window forming the most important feature of the design. An attractively simple school building at Cleveland, by F. S. Barnum and W. R. McCornack, is also of an unusual arrangement, well adapted to the unusual site — and its restful quality goes far to convince us as to a preference for this type of treatment over the less restful Elizabethan design. The Walker School, at Concord, N. H., by Huse Templeton Blanchard, is of a more monumental and usual type. Howells & Stokes' Dudley Memorial Gate is again illustrated, along with a group of stores at Chatham, Mass., by Henry Bailey Alden and William H. Cox, attractive enough in general aspect, but somewhat spoiled in detail by the obtrusive and unfeeling use of forced and bizarre brick patterns.

The November *Brickbuilder* gives both plate and text pages principally to the consideration of certain hospital work, particularly the Municipal Tuberculosis Sanitarium at Chicago, by W. A. Otis and Edwin H. Clark, and the Cook County Tuberculosis Colony and In-

firmly, at Oak Park, Ill., by Richard E. Schmidt, Garden & Martin. In addition, a bath-house at Hot Springs, Ark., is described and illustrated, and another installment of Mr. Price's articles on native woods for interior finish is also included. Of the hospital groups the scheme designed by Messrs. Otis & Clark is interesting, particularly for the accompanying plans. The structures, both of brick and plaster, are based upon a central administration, dining and service group, with a number of smaller residential units upon either side oriented to face the southeast. The Cook County Tuberculosis Group has already been illustrated, and was commented upon by us on its previous recent publication in *The American Architect*.

The American Architect publishes, November 3, an article on "New English Country Houses," with several text illustrations, extending over into the plates; Mr. E. B. Homer's Lincoln School, at Providence, a plaster building of rather a domestic type; and a Memorial Building at Colorado College, by Maurice B. Biscoe, a Gymnasium and Commons having an outdoor arena of smaller and more intimate form than the gigantic structures of similar type recently erected in the East.

In the issue for November 10 is published, at great length, a structure for the Headquarters Building of the New York Palisades Interstate Park, in which, through a mistaken idea of having it appropriately "rustic" in design, all regard for architectural principles has been lost. The term "rustic" has unfortunately come to be one of reproach. It would naturally suggest due consideration for those principles of appropriateness and beauty inseparable in nature; and that the attempts of man to imitate them need not be such a burlesque parody as this has been amply proven by the Japanese. A house at Piedmont, Cal., by Bliss & Faville, probably hardly appears to advantage in these reproductions; it is here cold and bare to a degree. The J. N. Wright house, at Denver, in attempting to recall Eastern characteristics of design, unfortunately incorporates needless extravagances and crudities, such as the curving buttress and urns at the corners, and the end gable treatment.

The issue for November 17 contains an article on lattice work, illus-



Bird's-eye View, State Capitol Buildings, Olympia, Wash.

Wilder & White, Architects

(From "The Architectural Record")



Charles S. Walton House, St. Davids, Pa.

David Knickerbacker Boyd, Architect

the new Capitol Group for the State of Washington, at Olympia, we reproduce a bird's-eye perspective. The other plates principally consist of small houses and school buildings.

The Builder for October 22 reprints some illustrations of the San Diego Exposition, and students' drawings of the Royal College of Art, with details of St. George's Parish Church, Edinburgh. October 29 contains illustrations of Grace Church, San Francisco, and the Spanish Church, New York City.

(From "The Builder," London)



House at Sunningdale, England

Tubbs, Messer & Pouller, Architects

(From "The Builder," London)

o' ANTIBES



South Elevation

English Church, Cap d'Antibes

Frank L. Pearson, Architect

West Elevation

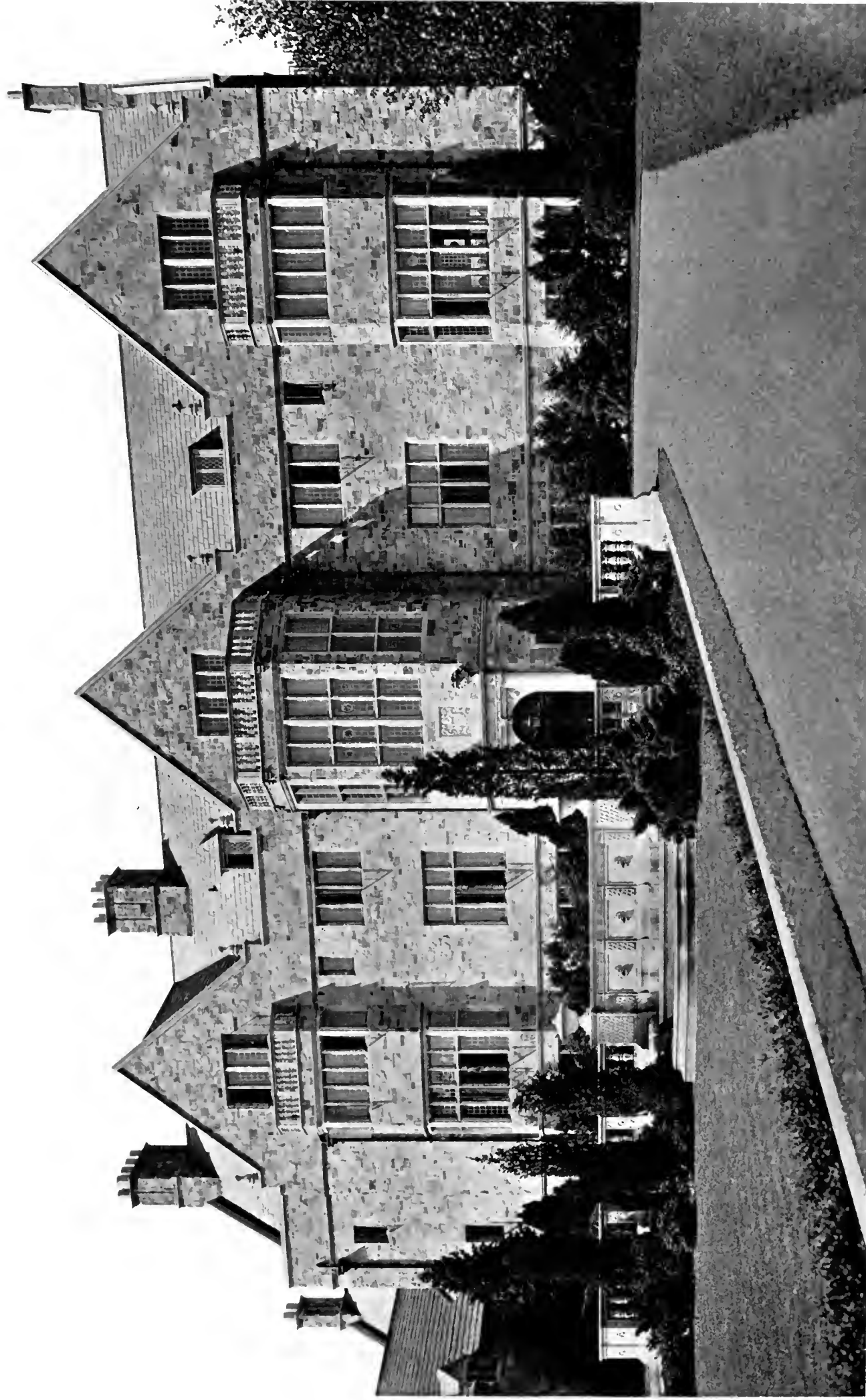
trated by elaborately formal and complicated examples, especially of the French type. Carrère & Hastings' Pulitzer Memorial, in the Plaza at the Park entrance on Fifth Avenue and 59th Street, New York City, is prematurely illustrated by photographs showing the memorial (published in our issue of May, 1913) in an unfortunately incomplete state, and from such poorly selected points of view as to feature its dreary background rather than the structure itself. Two buildings from the Panama Pacific Ex-

position are published: one, Thomas H. Burditt's California Building, containing many details recalling the old mission architecture of the State, despite its over-elaborate composition; and the Cuba Pavilion, a poor attempt at reproducing the courtyard of the Bureau of the American Republics at Washington. A San Francisco office building by Bliss & Faville is also shown, along with one of the new memorial pylons at Columbia University, by McKim, Mead & White.

The issue for November 24 is given to miscellaneous work, built and projected, by Wilder & White. From the illustrations of

the new Capitol Group for the State of Washington, at Olympia, we reproduce a bird's-eye perspective. The other plates principally consist of small houses and school buildings. *The Builder* for October 22 reprints some illustrations of the San Diego Exposition, and students' drawings of the Royal College of Art, with details of St. George's Parish Church, Edinburgh. October 29 contains illustrations of Grace Church, San Francisco, and the Spanish Church, New York City. November 5 shows a house at Beaconsfield, by Melville Seth Ward, by some small illustrations; a drawing for the rood screen for the Cathedral at Hobart Town, Tasmania, by Messrs. Bodley & Hare; a reredos in a church in Victoria Park; and Mr. Stratton's proposed remodeling of King's College School, Wimbledon Common.

November 12 publishes Mr. C. E. Bateman's Parish Church screen at Walsall; additions to Madingley Hall, by Gotch & Saunders; a rambling country house with big stacks, at Sunningdale; a design for a little English church at Cap d'Antibes, by Frank L. Pearson; and part of the Margarethe-Höhe article from the ARCHITECTURAL REVIEW.



Photograph by Julian Buckley

ENTRANCE FRONT

COUNTRY HOUSE AT GLEN COVE, LONG ISLAND

TROWBRIDGE & ACKERMAN, ARCHITECTS



Fig. 1. — (See p. 10.)

DETAIL OF ENTRANCE FROM FORECOURT
COUNTRY HOUSE AT GLEN COVE, LONG ISLAND
TROWBRIDGE & ACKERMAN, ARCHITECTS



Photo by Jacobus Buchli

DETAIL OF DINING-ROOM BAY
COUNTRY HOUSE AT GLEN COVE, LONG ISLAND
TROWBRIDGE & ACKERMAN, ARCHITECTS

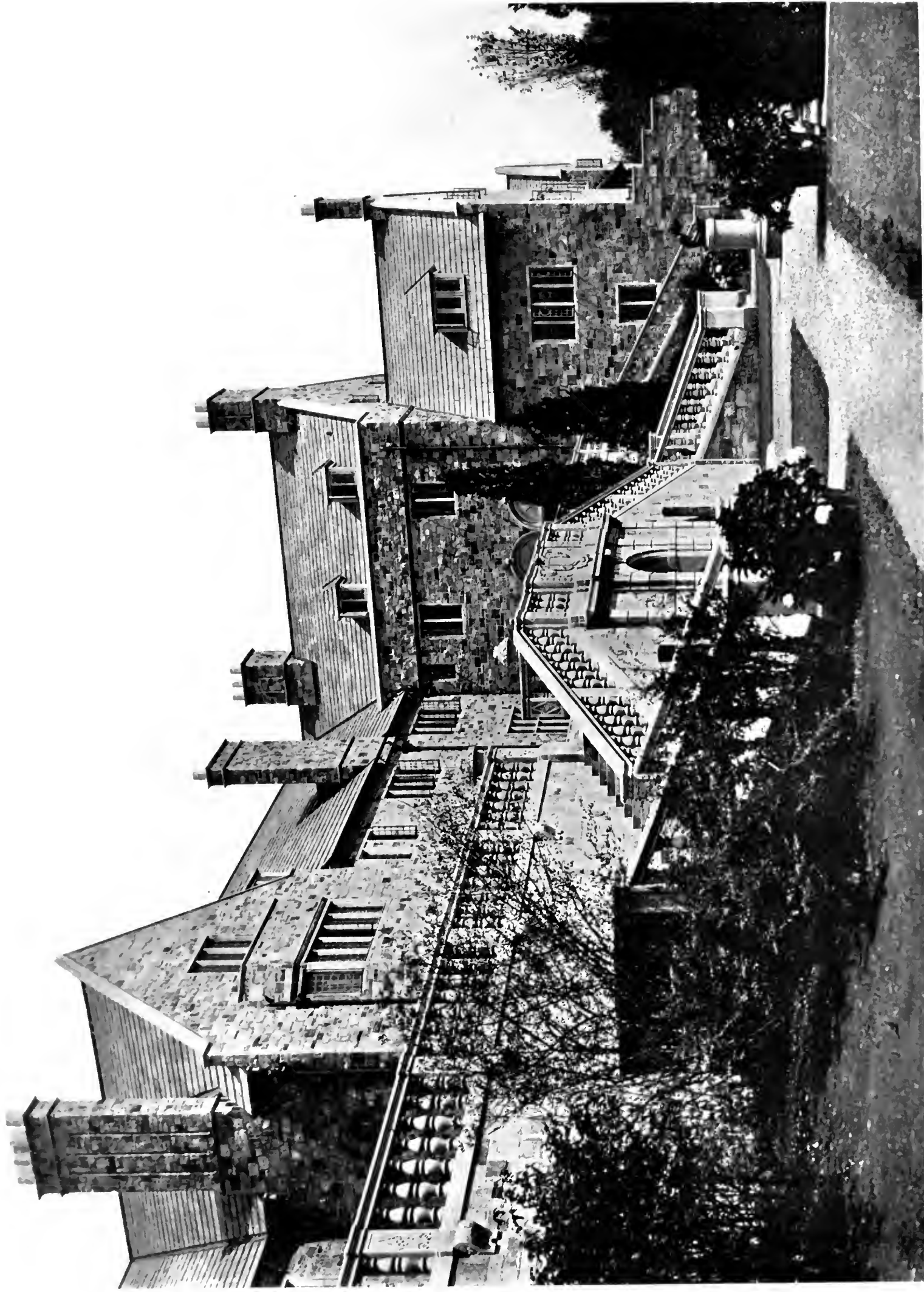


VIEW OF HOUSE ACROSS POOL FROM SOUTH
COUNTRY HOUSE AT GLEN COVE, LONG ISLAND
TROWBRIDGE & ACKERN, ARCHITECTS



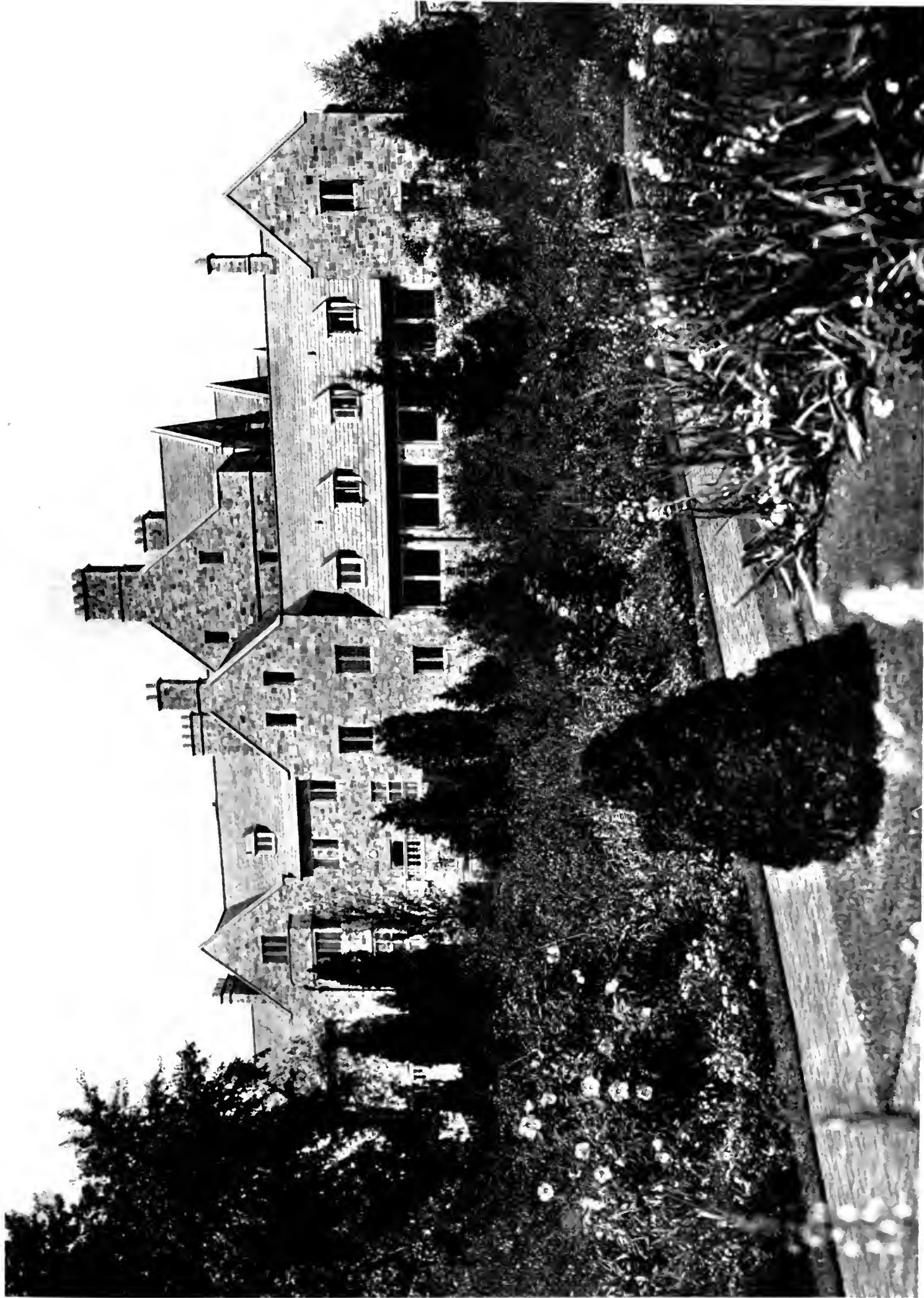
Photograph by Julian Buckley

SOUTH TERRACE, STEPS AND LIVING-ROOM BAY
COUNTRY HOUSE AT GLEN COVE, LONG ISLAND
TROWBRIDGE & ACKERMAN, ARCHITECTS



Photograph by Julian Buckley

VIEW FROM BELOW SOUTH TERRACE
COUNTRY HOUSE AT GLEN COVE, LONG ISLAND
TROWBRIDGE & ACKERMAN, ARCHITECTS



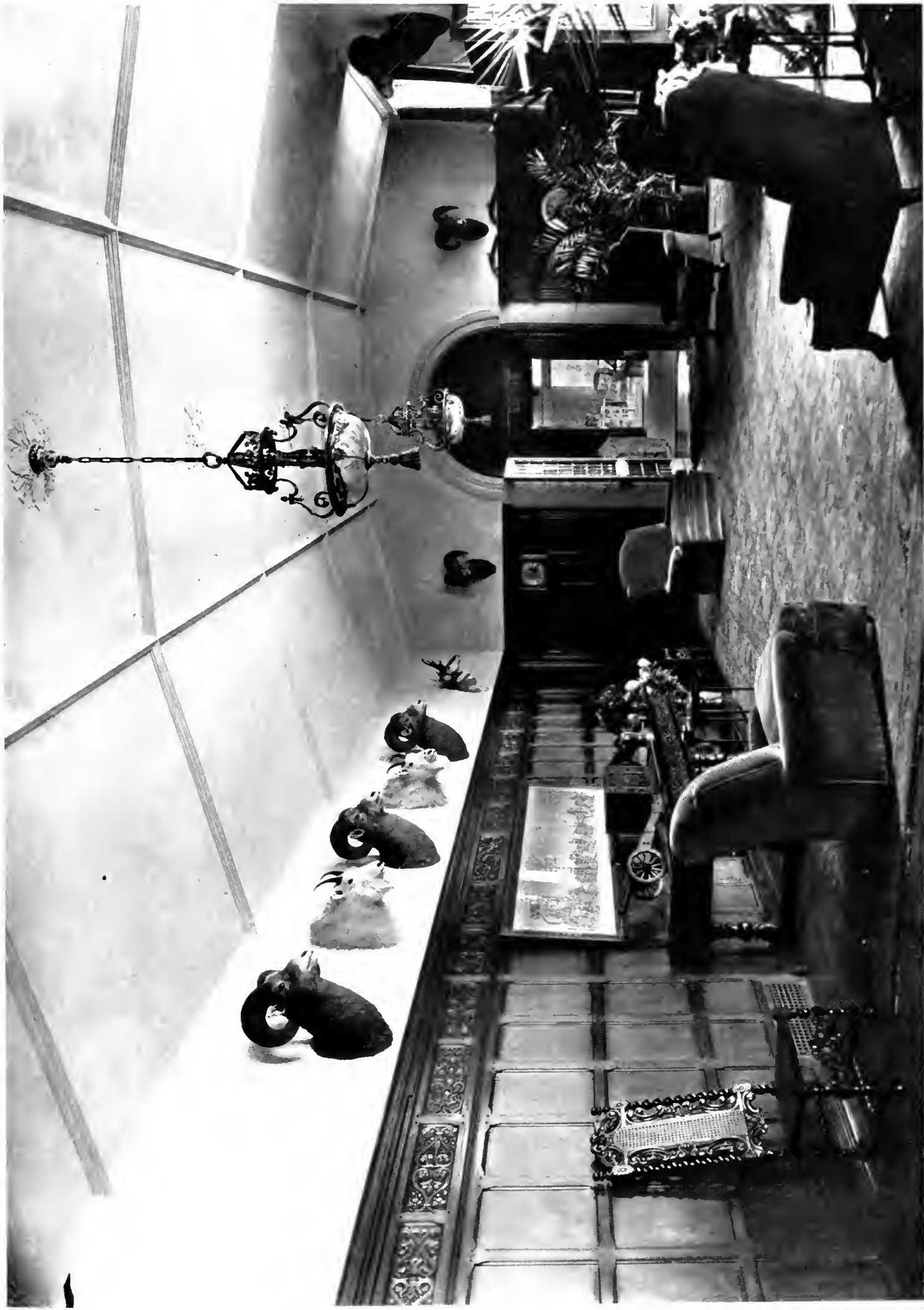
Photograph by Julian Faull

VIEW OF SERVICE WING, FROM GARDEN AT SOUTH
COUNTRY HOUSE AT GLEN COVE, LONG ISLAND
TROWBRIDGE & ACKERMAN, ARCHITECTS



Photograph by Julian Buckley

ENTRANCE HALL
COUNTRY HOUSE AT GLEN COVE, LONG ISLAND
TROWBRIDGE & ACKERMAN, ARCHITECTS



THE GALLERY
COUNTRY HOUSE AT GLEN COVE, LONG ISLAND
BROWBRIDGE & VERNAN, ARCHTCTS

Photograph by Julian Buckley



Photograph by Julian Faull

DINING ROOM
COUNTRY HOUSE AT GLEN COVE, LONG ISLAND
TROWBRIDGE & ACKERMAN, ARCHITECTS



Photo. by J. G. B. & Co.

LIVING ROOM
COUNTRY HOUSE AT GLEN COVE, LONG ISLAND
THOMAS H. JACKMAN, ARCHITECT



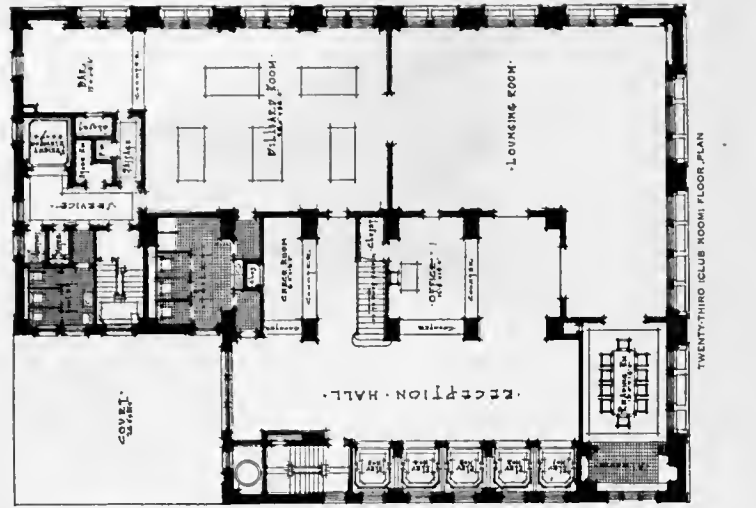
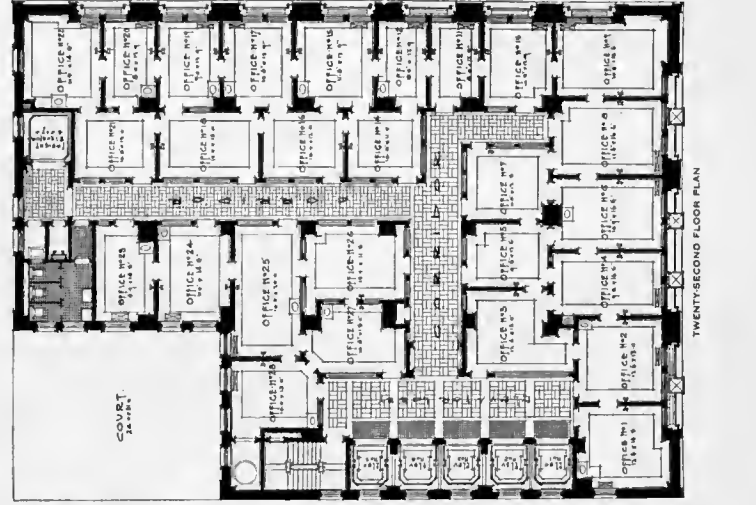
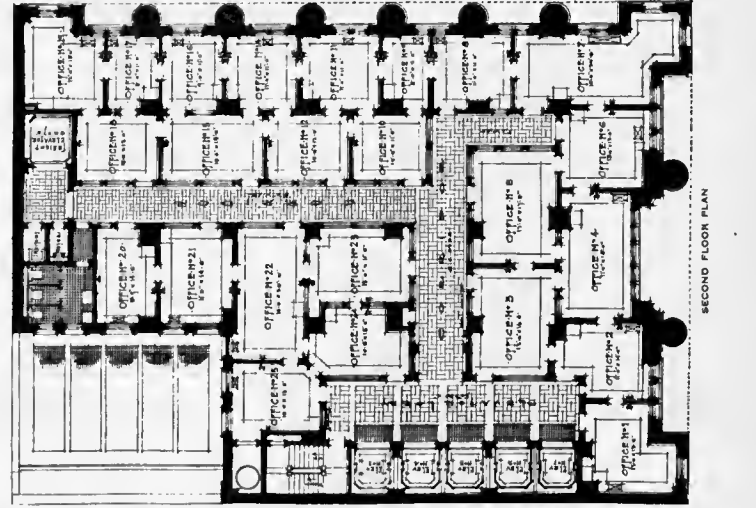
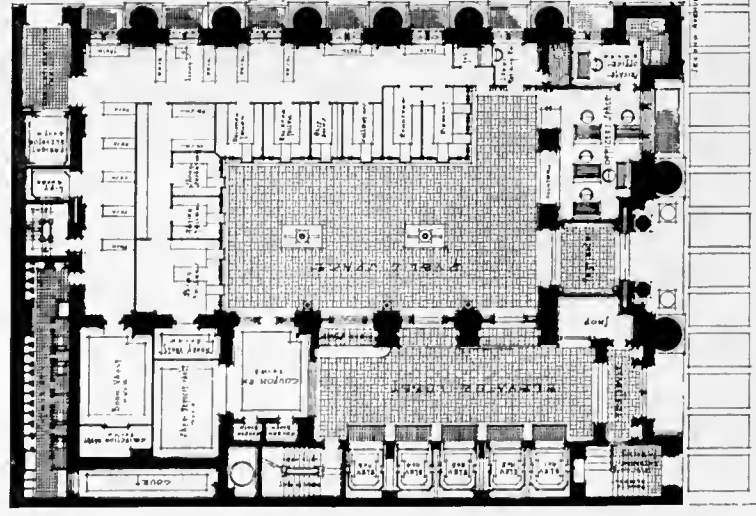
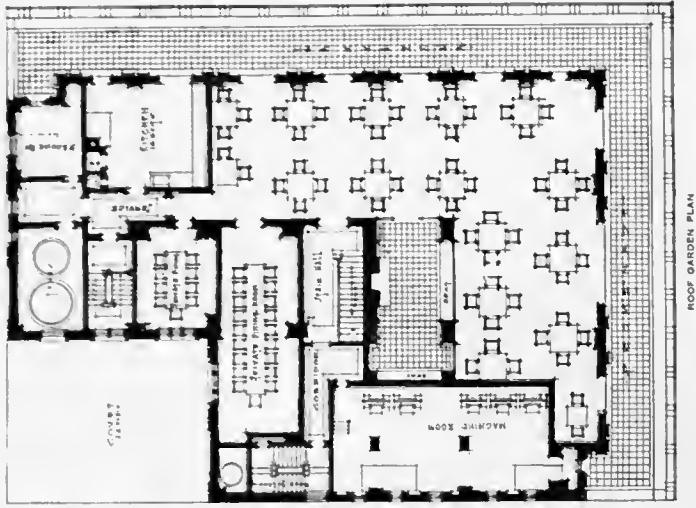
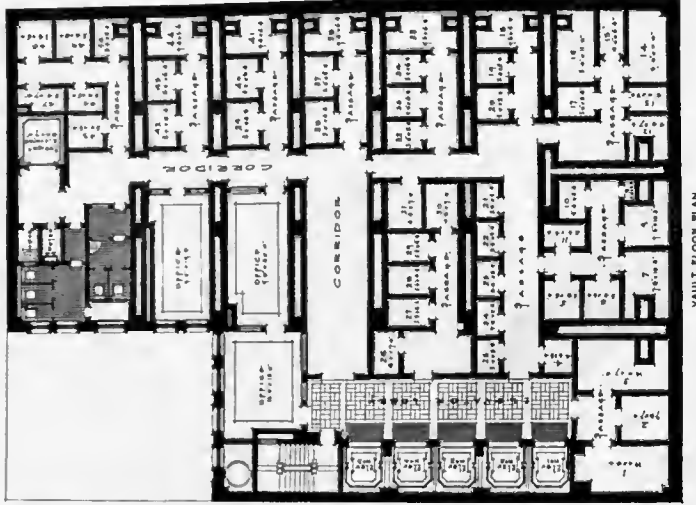
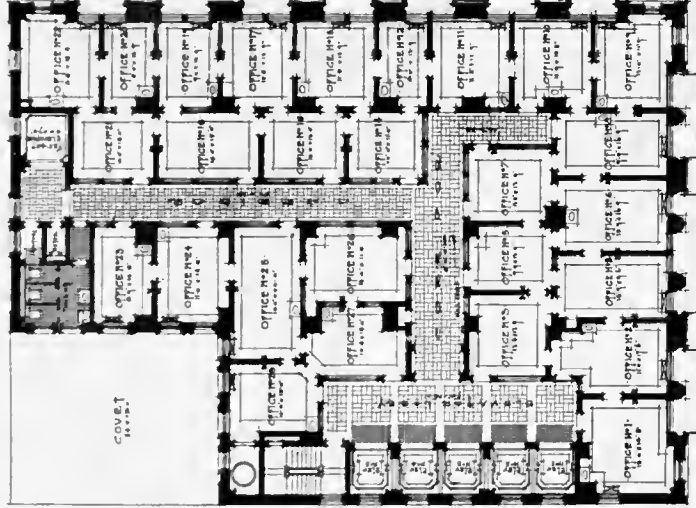
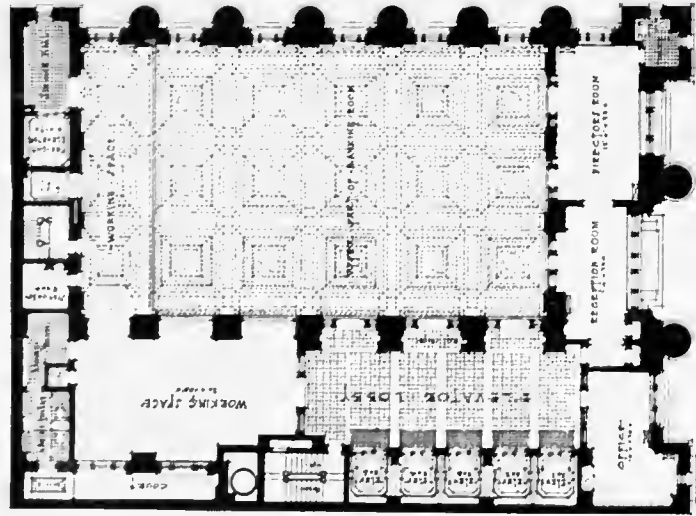
DETAIL OF LIVING-ROOM

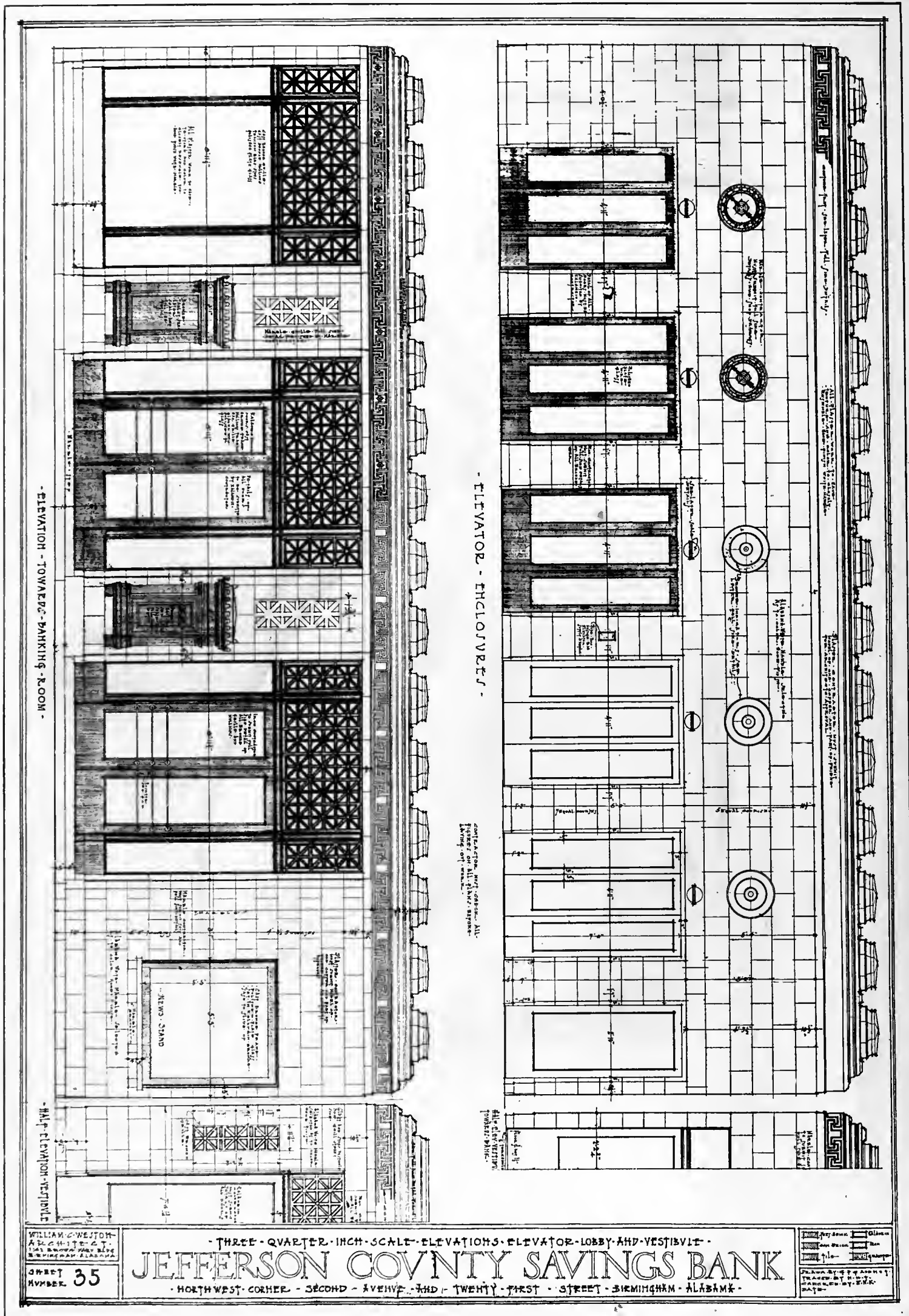


DETAIL OF DINING-ROOM

COUNTRY HOUSE AT GLEN COVE, LONG ISLAND

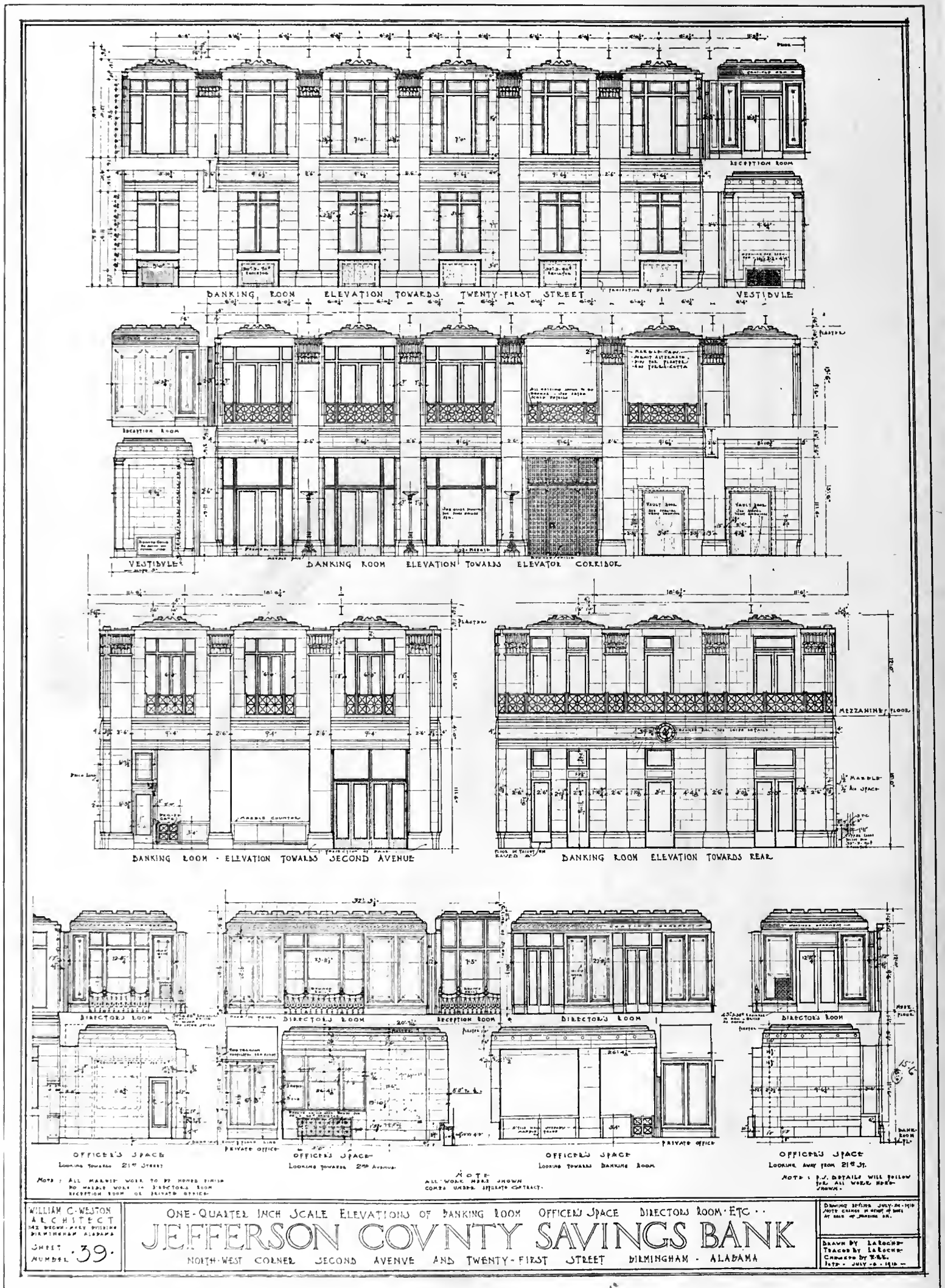
TROWBRIDGE & ACKERMAN, ARCHITECTS





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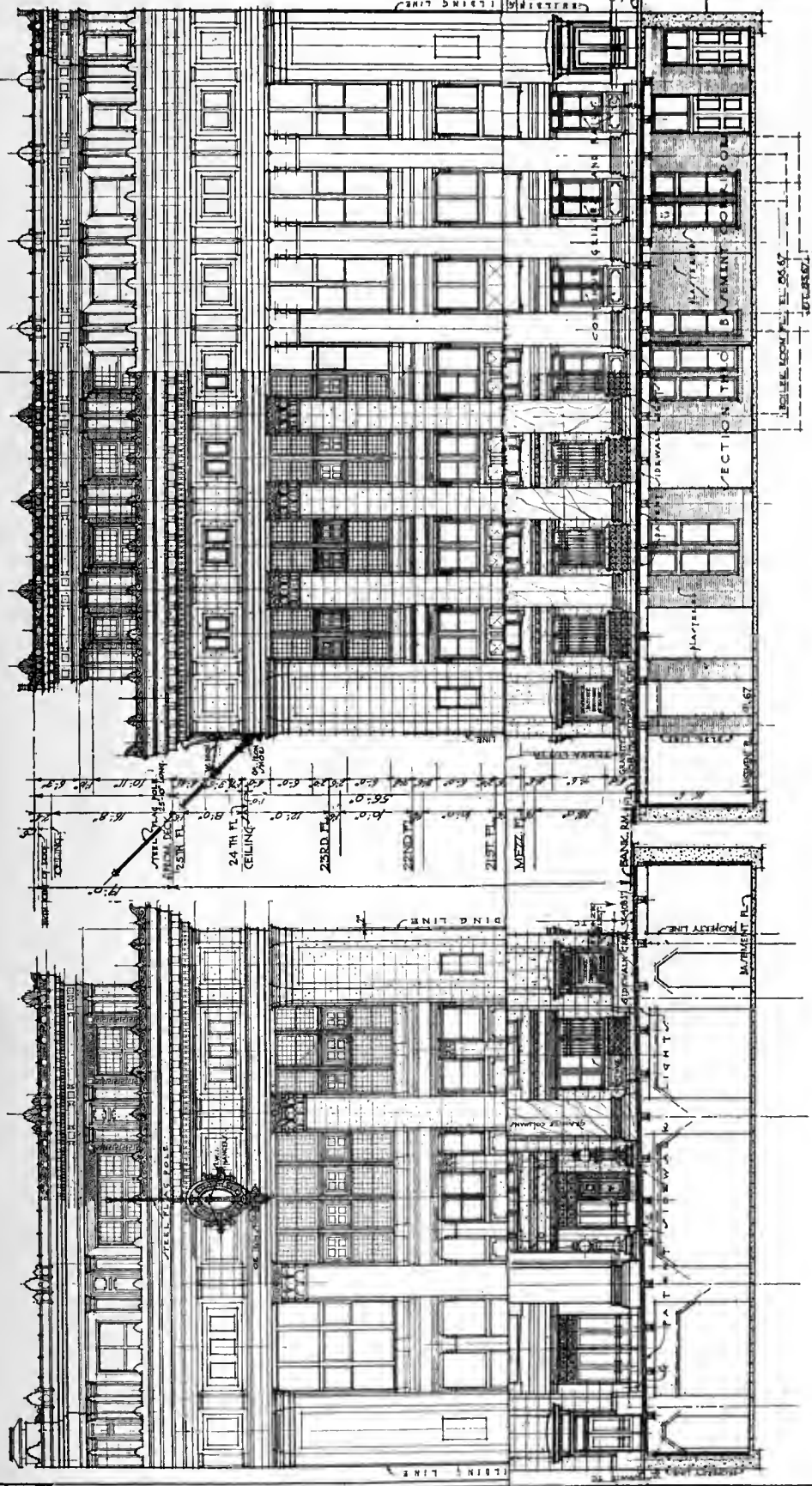
WILLIAM C. WESTON, ARCHITECT



DETAILS OF FIRST FLOOR BANKING-ROOM

JEFFERSON COUNTY SAVINGS BANK, BIRMINGHAM, ALA.

WILLIAM C. WESTON, ARCHITECT



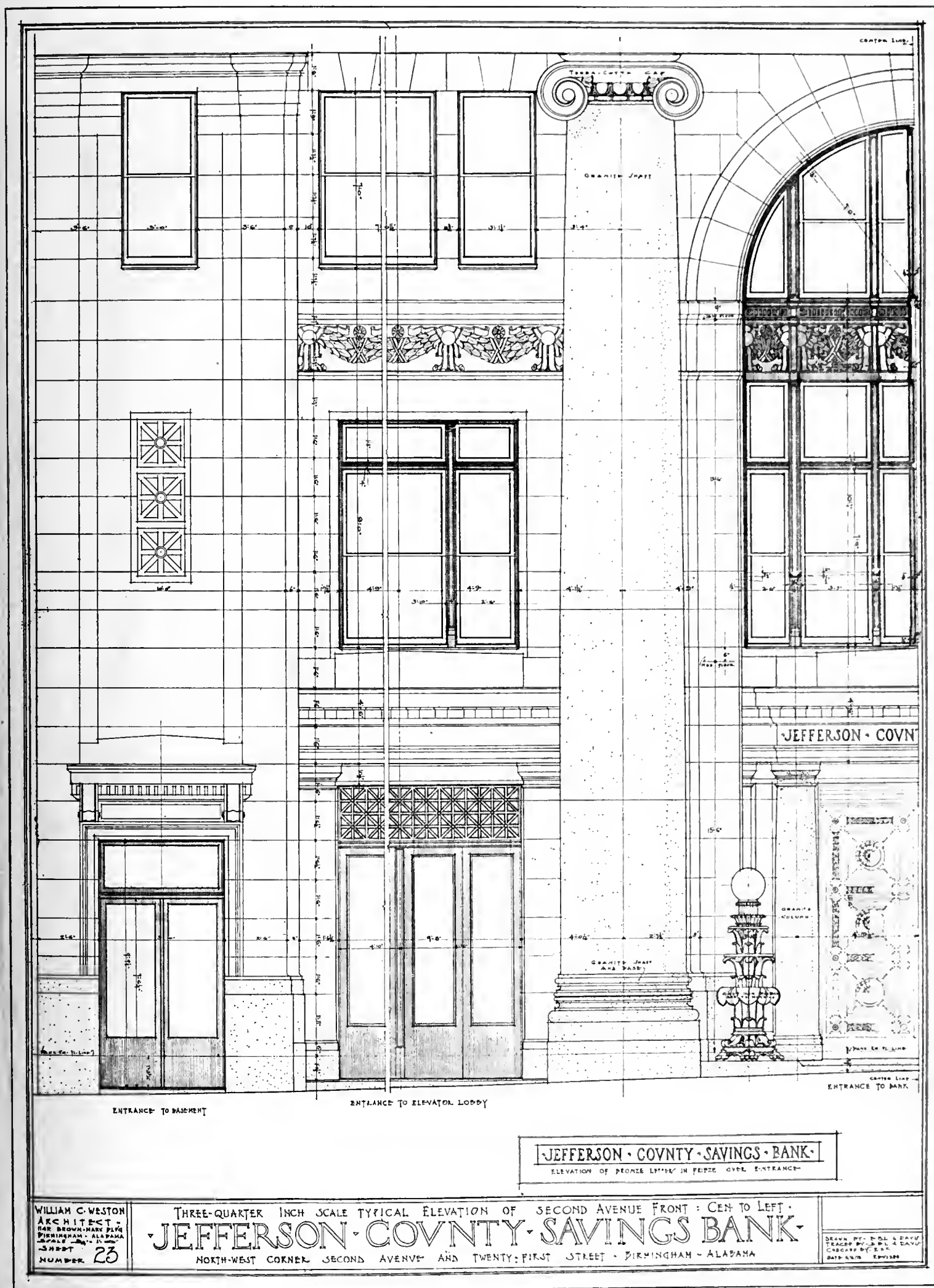
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 PORTION OF FACADE INDICATED IN
 OUTLINE TO BE SAME AS PORTION
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 FINISHES TO BE INDICATED IN GENERAL
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 FINISHES OF MOULDINGS, DENTILS, ETC.
 OF ALL CORNICES AND BELTS TO BE DE-
 TERMINED FROM DETAILS FOR SAME.
 NO PROTECTIONS TO BE SHOWN OVER N. & W. PROPERTY LINE

JEFFERSON COUNTY SAVINGS BANK
 ARCHITECT
 WILLIAM C. WESTON
 BIRMINGHAM, ALA.
 DRAWN BY: J. H. L. & C. C.
 CHECKED BY: G. E. C.
 DATE: DEC. 1912

SECOND AVENUE ELEVATION TWENTY-FIRST STREET ELEVATION
JEFFERSON COUNTY SAVINGS BANK
 NORTH-WEST CORNER SECOND AVENUE AND TWENTY FIRST STREET BIRMINGHAM ALABAMA

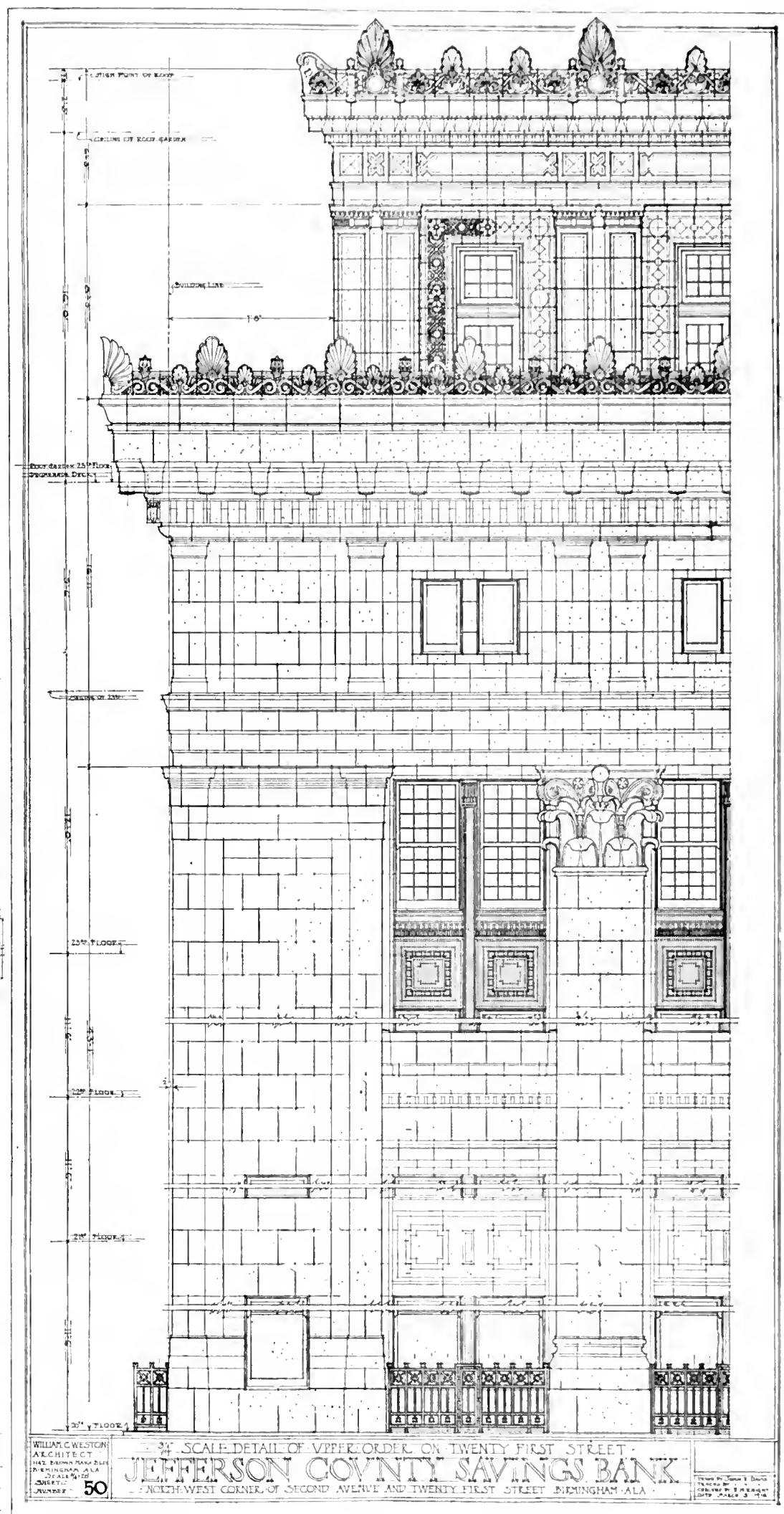
WILLIAM C. WESTON
 ARCHITECT
 BIRMINGHAM, ALA.
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 NUMBER 17

PRINCIPAL ELEVATIONS
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 WILLIAM C. WESTON, ARCHITECT

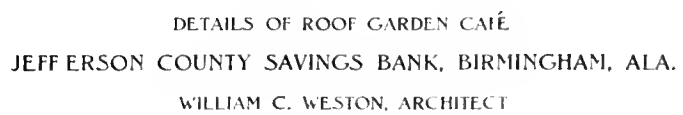


SCALE DRAWINGS OF ORDER AND LOWER STORIES
JEFFERSON COUNTY SAVINGS BANK, BIRMINGHAM, ALA.

WILLIAM C. WESTON, ARCHITECT



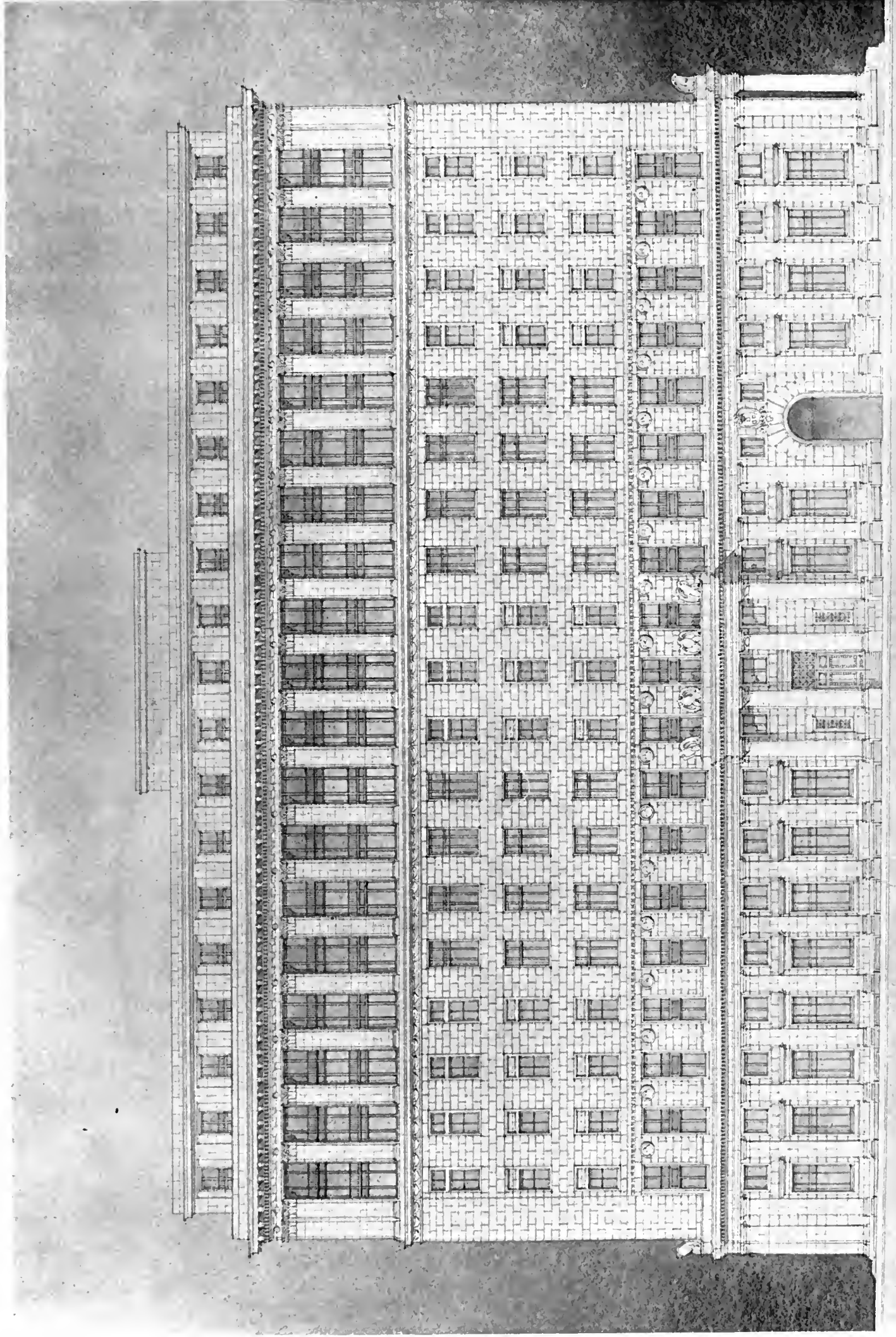
SCALE DRAWINGS AND DETAILS OF ORDER AND UPPER STORIES
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WILLIAM C. WESTON, ARCHITECT



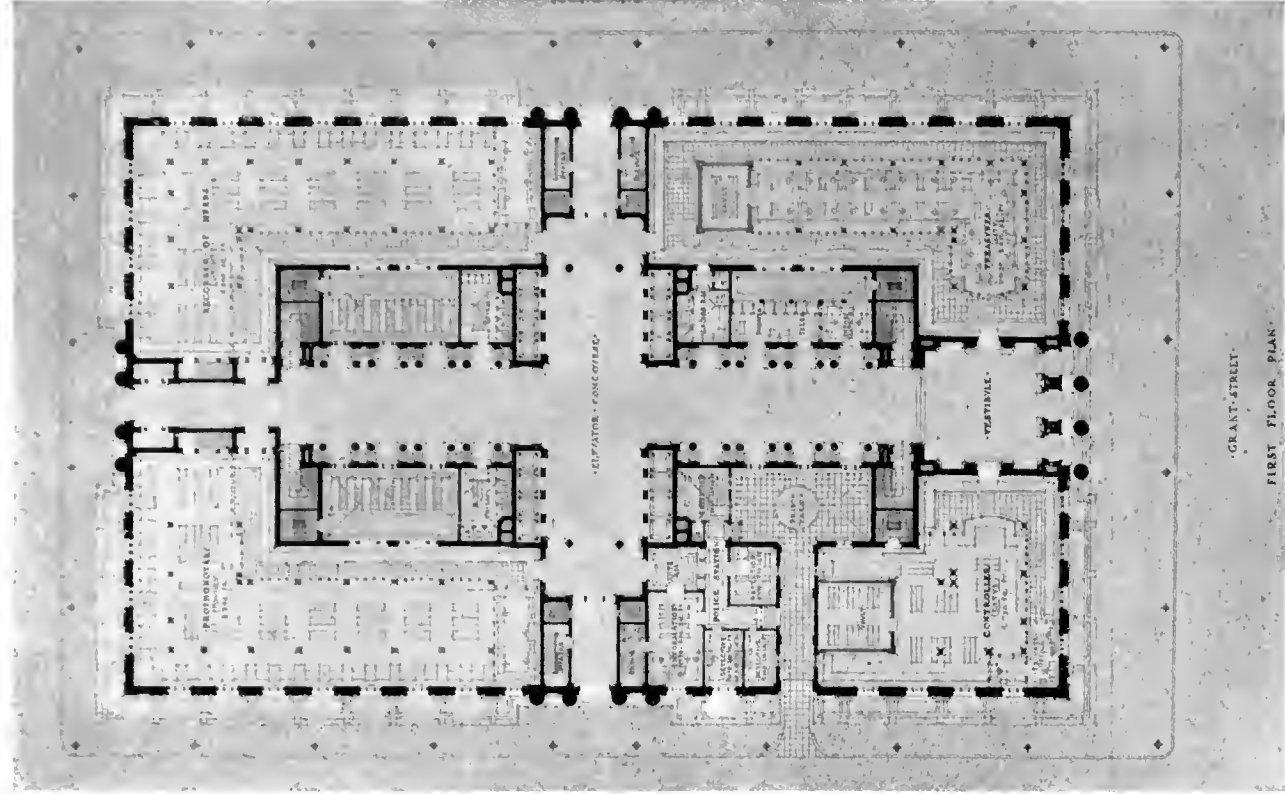
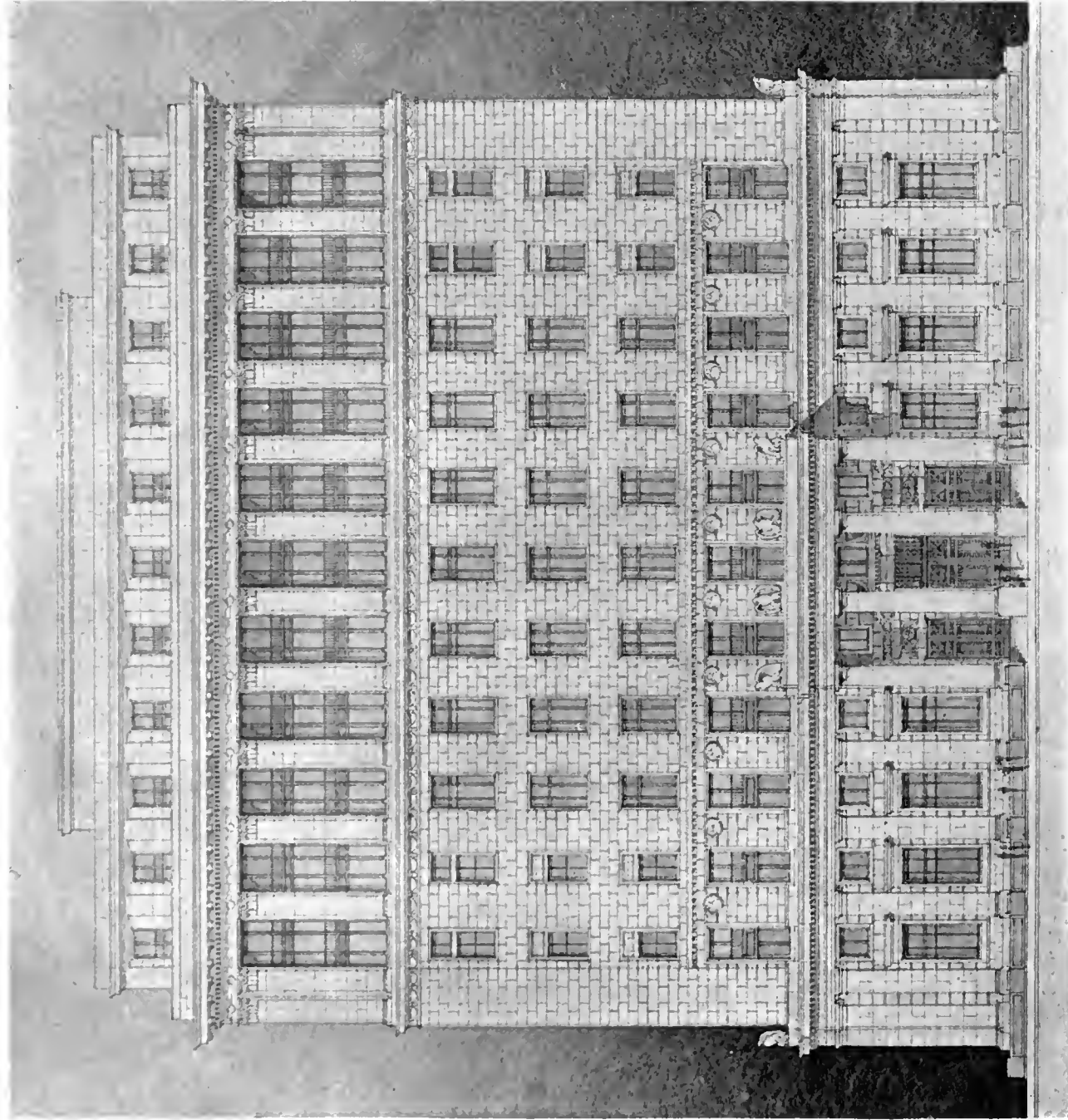
THE ARCHITECTURAL REVIEW

VOL. III., NO. 3

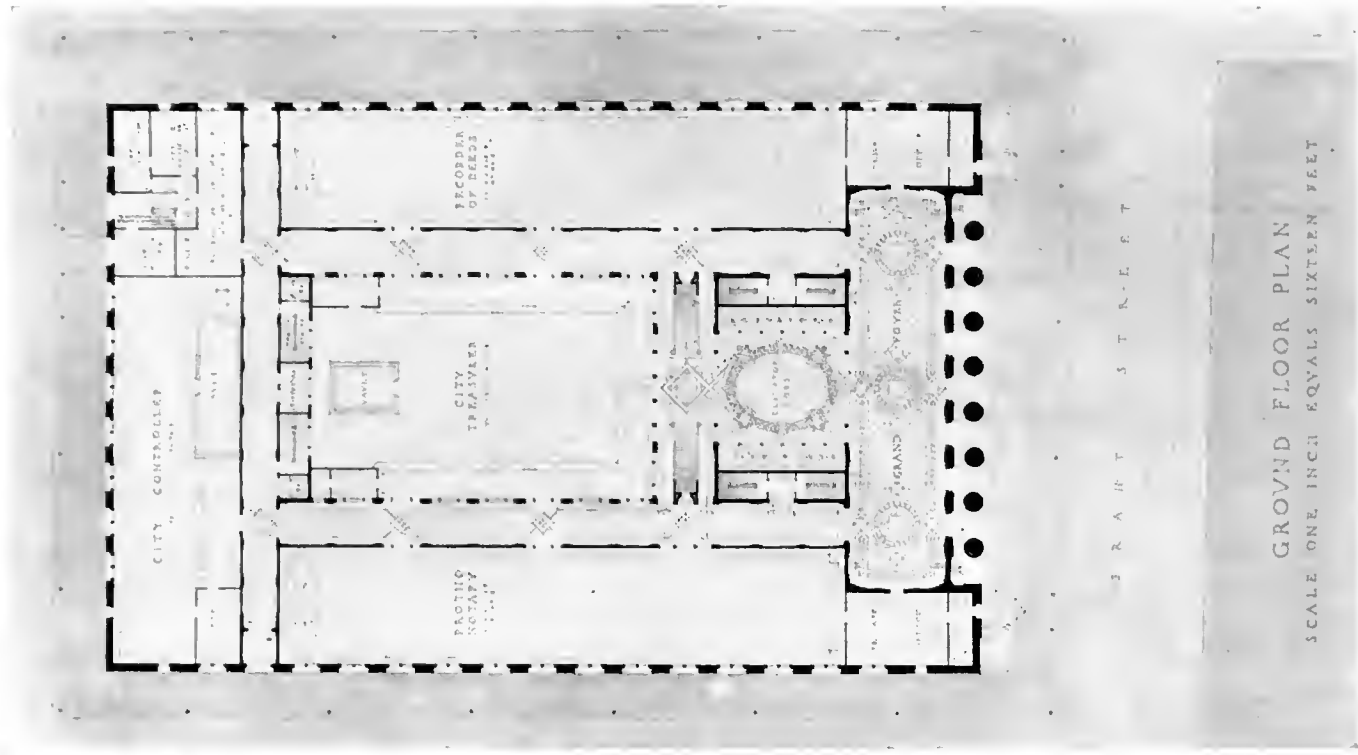
PLATE XXI



COMPETITION FOR THE PITTSBURGH COURT HOUSE-CITY HALL, PITTSBURGH, PA.



COMPETITION FOR THE PITTSBURGH COURT HOUSE-CITY HALL, PITTSBURGH, PA.
MACCLURE & SPAHR, ARCHITECTS



GRANT STREET ELEVATION

THEY ARE NOT EQUALS. A FEEL

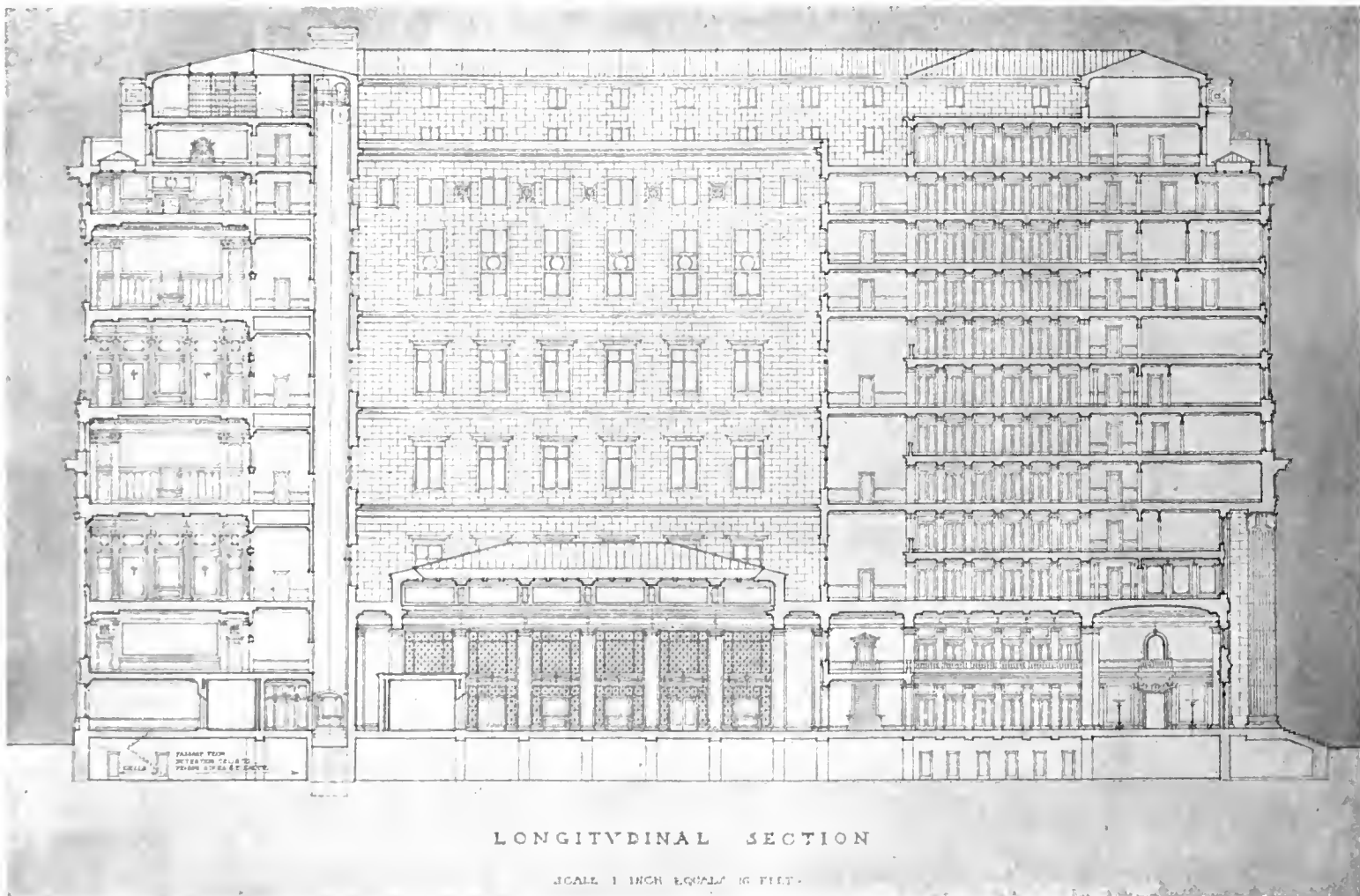
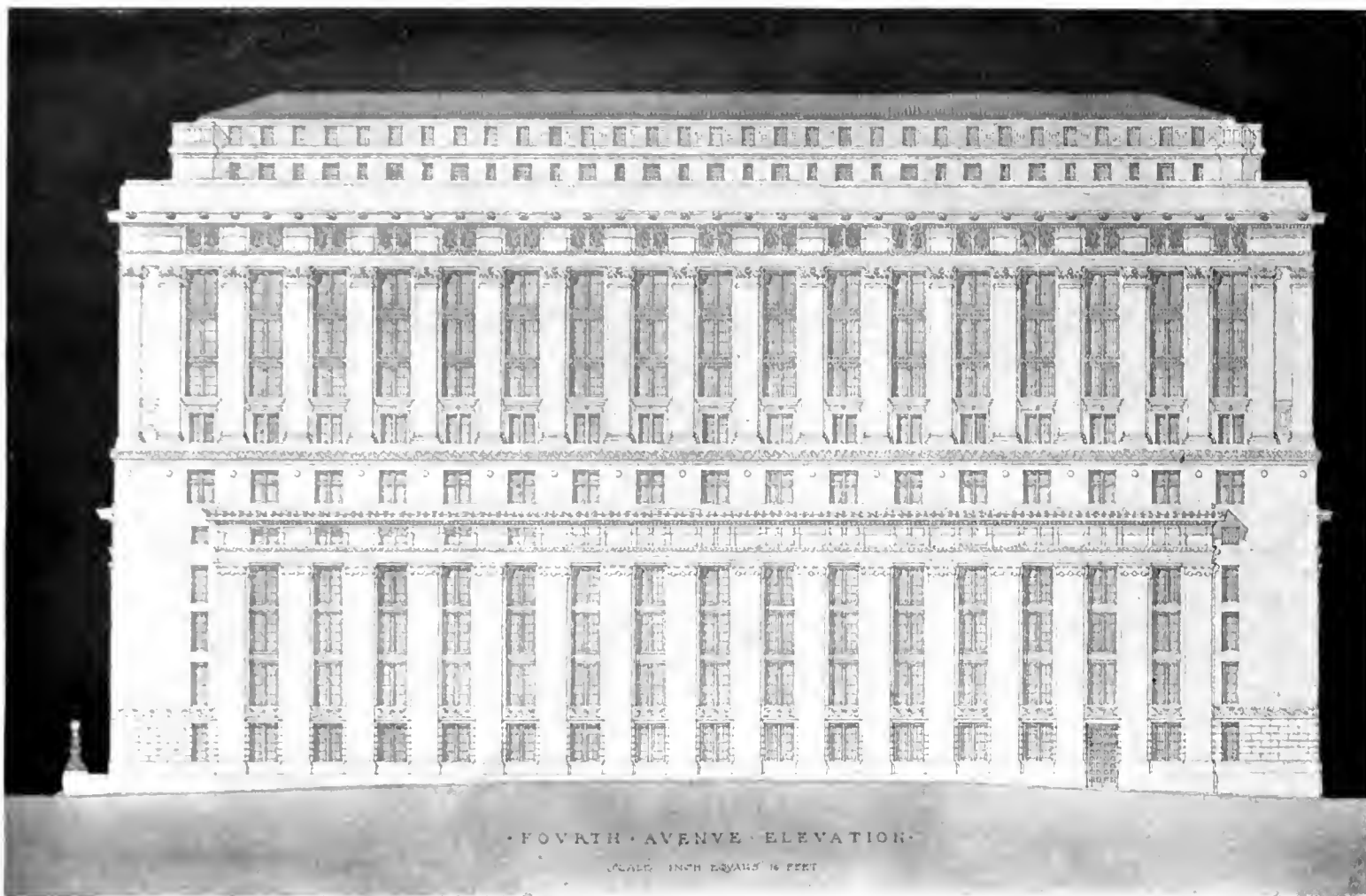
GROUND FLOOR PLAN

SCALE ONE INCH EQUALS SIXTEEN FEET

$\frac{1}{\sqrt{2}}$

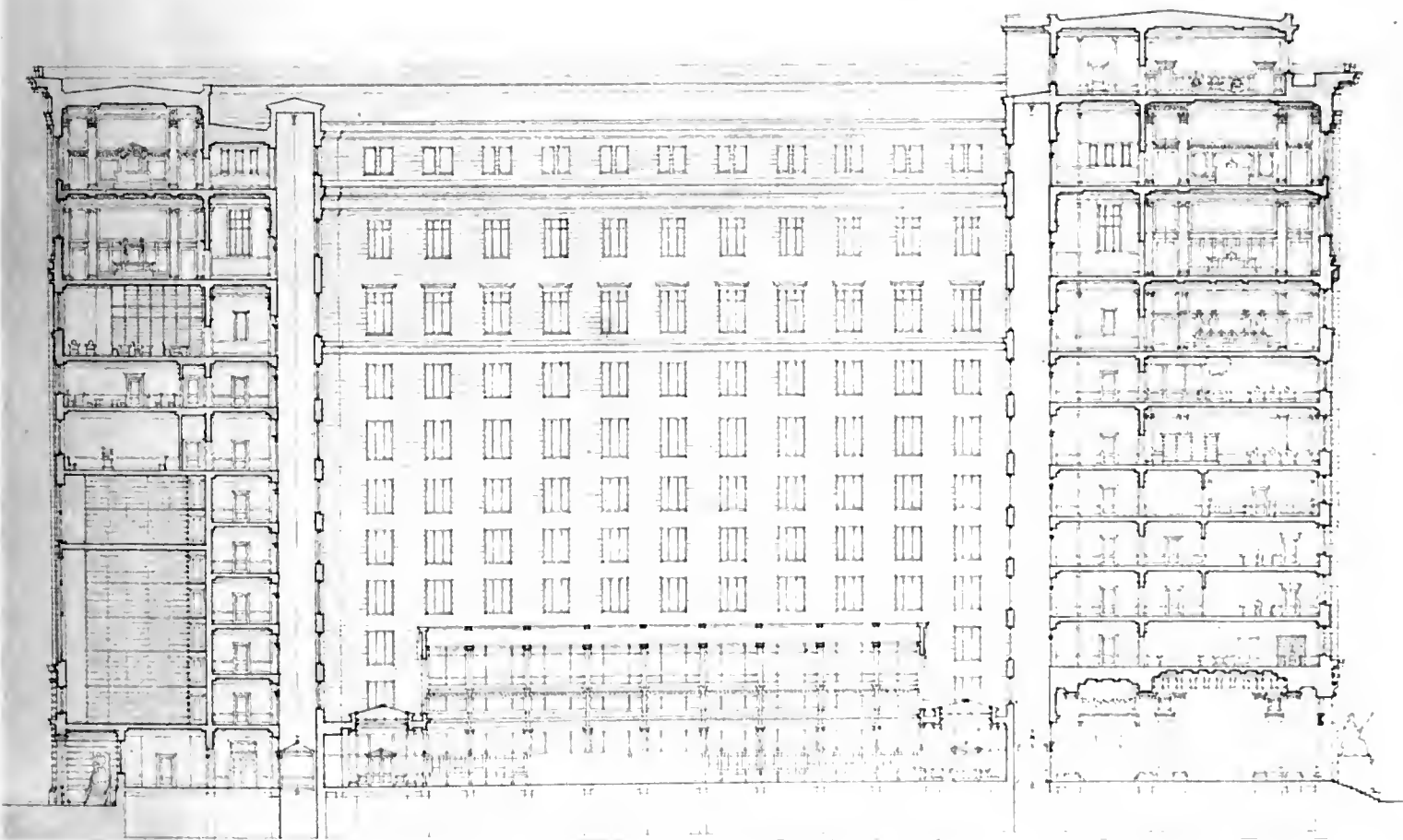
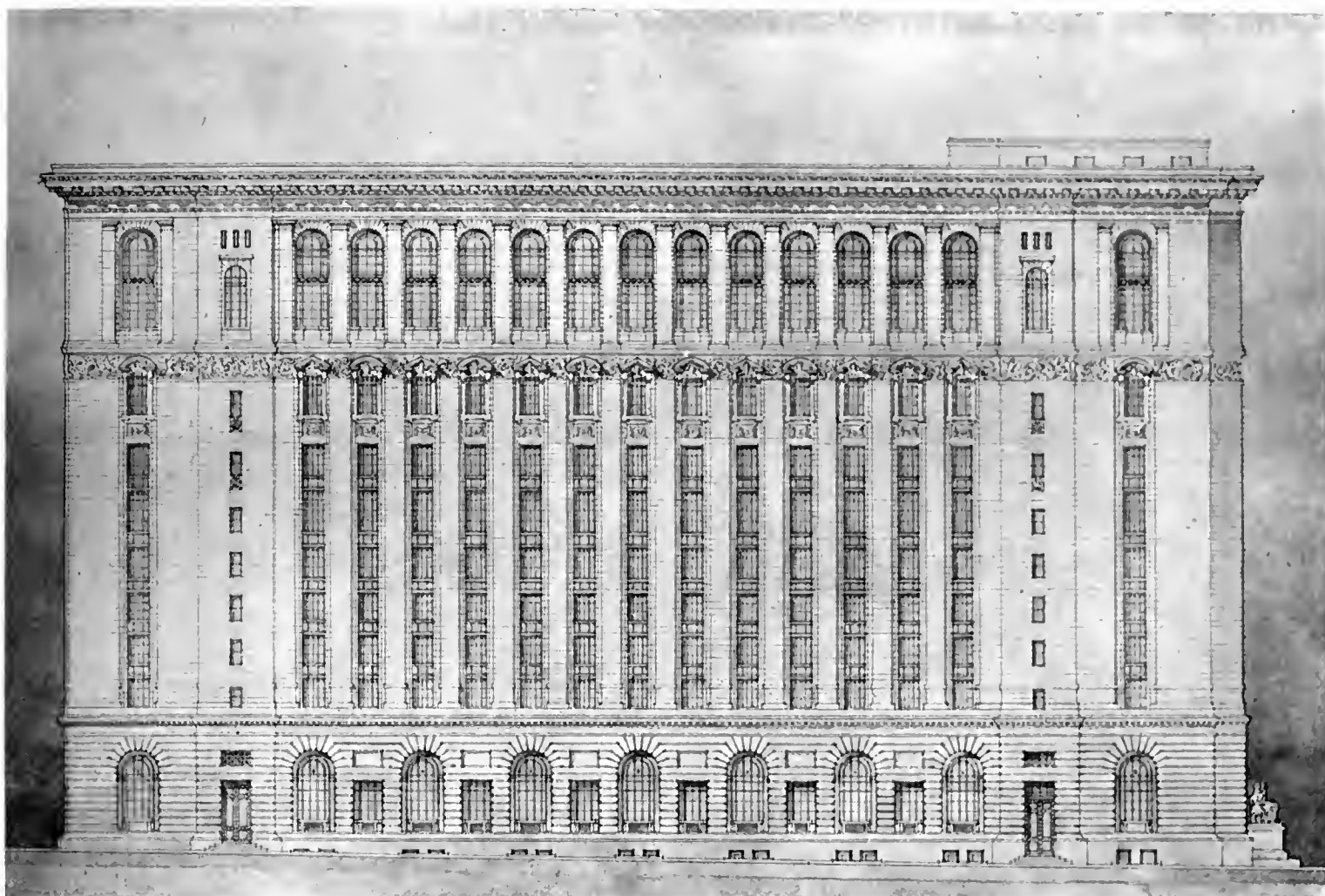
COMPETITION FOR THE PITTSBURGH COURT HOUSE-CITY HALL, PITTSBURGH, PA.

RUTAN & RUSSELL, ARCHITECTS



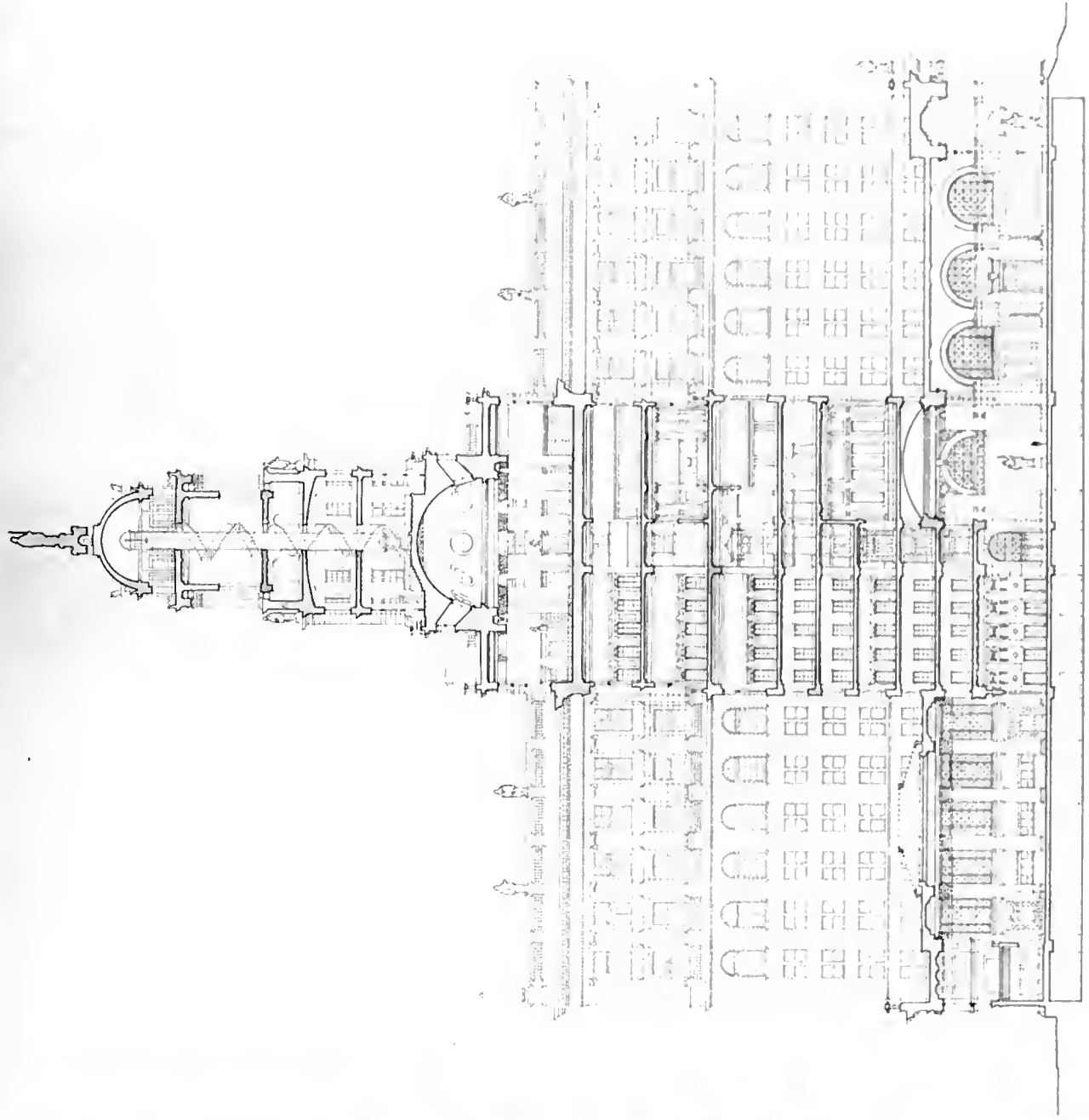
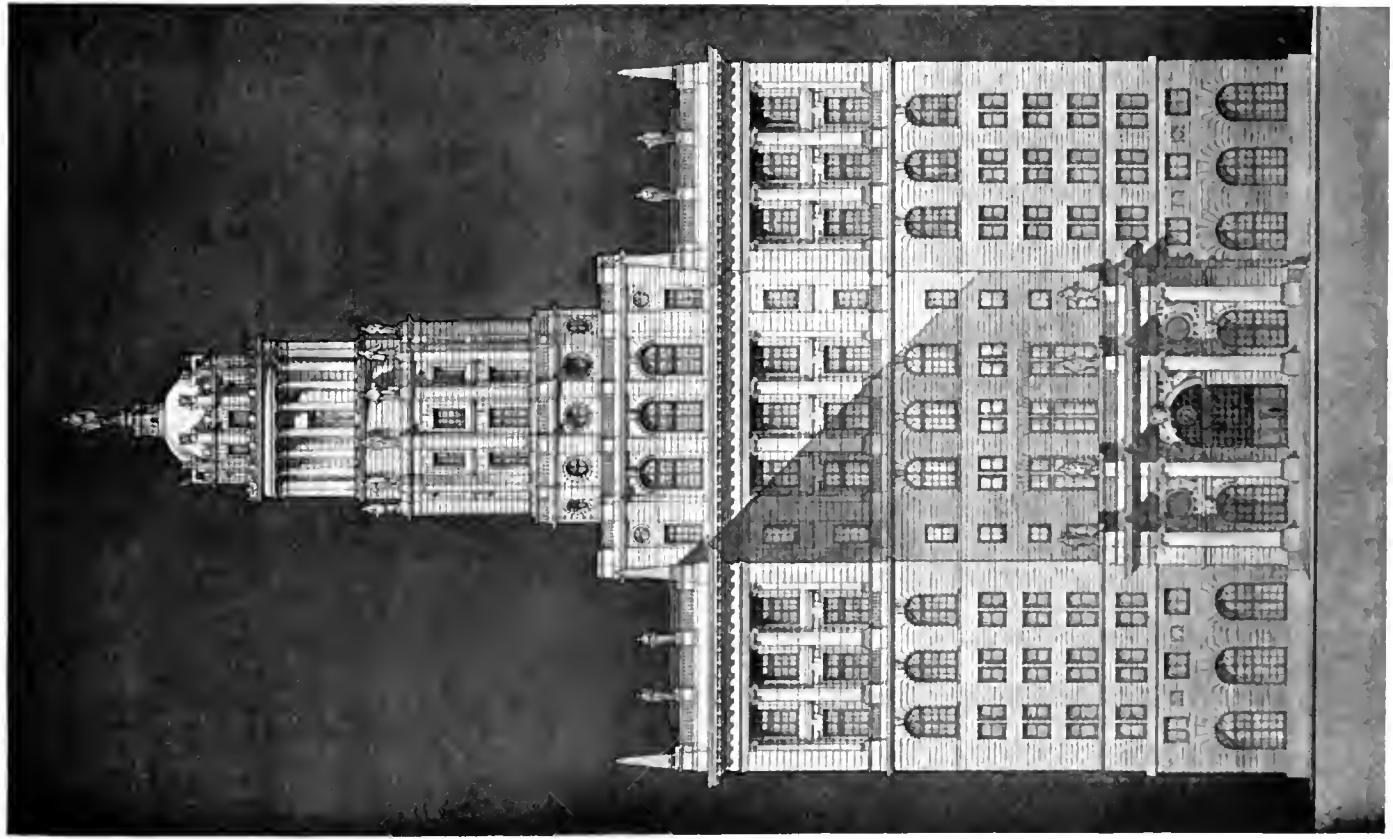
COMPETITION FOR THE PITTSBURGH COURT HOUSE-CITY HALL, PITTSBURGH, PA.

RULAN & RUSSELL, ARCHITECTS



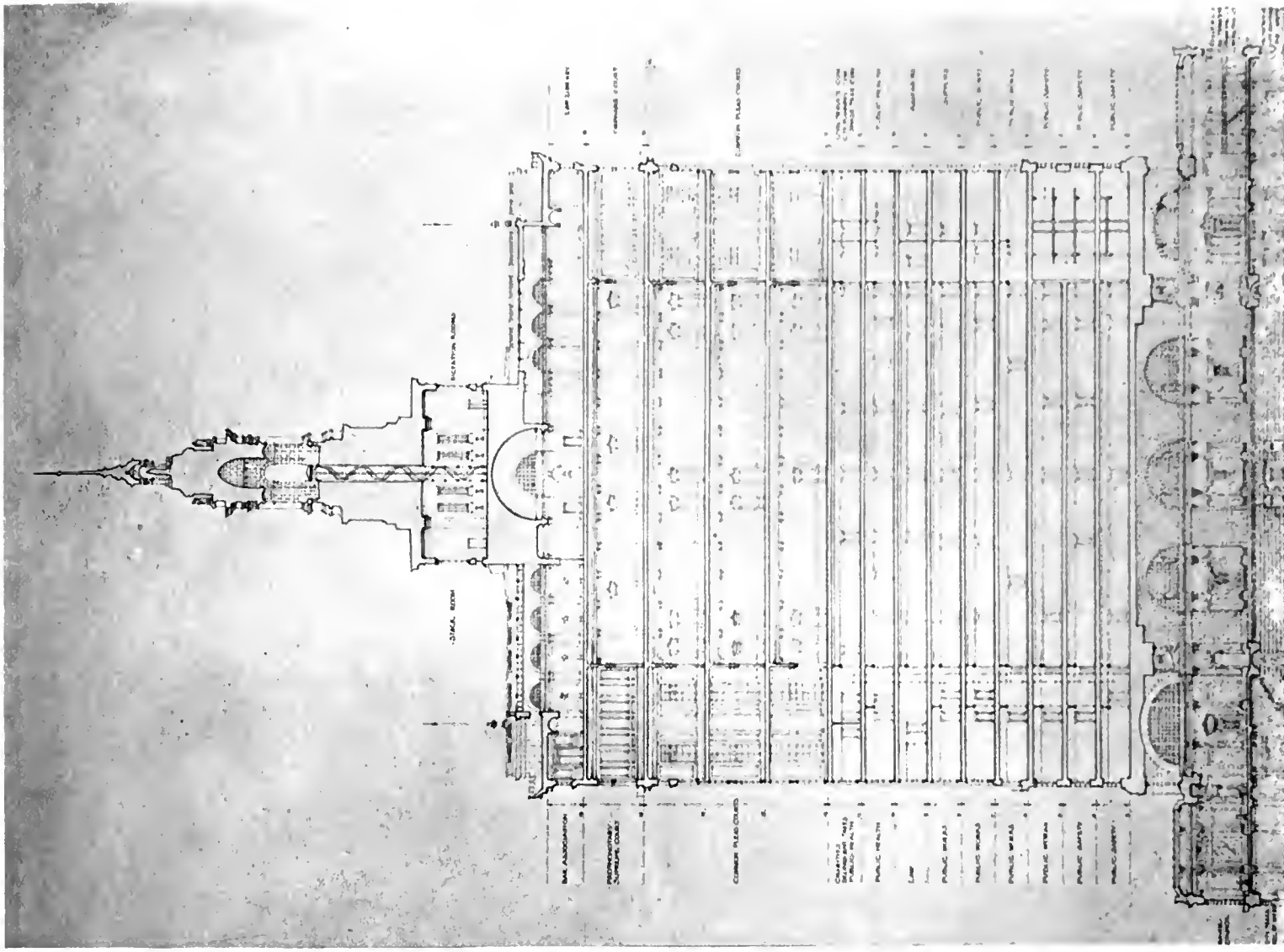
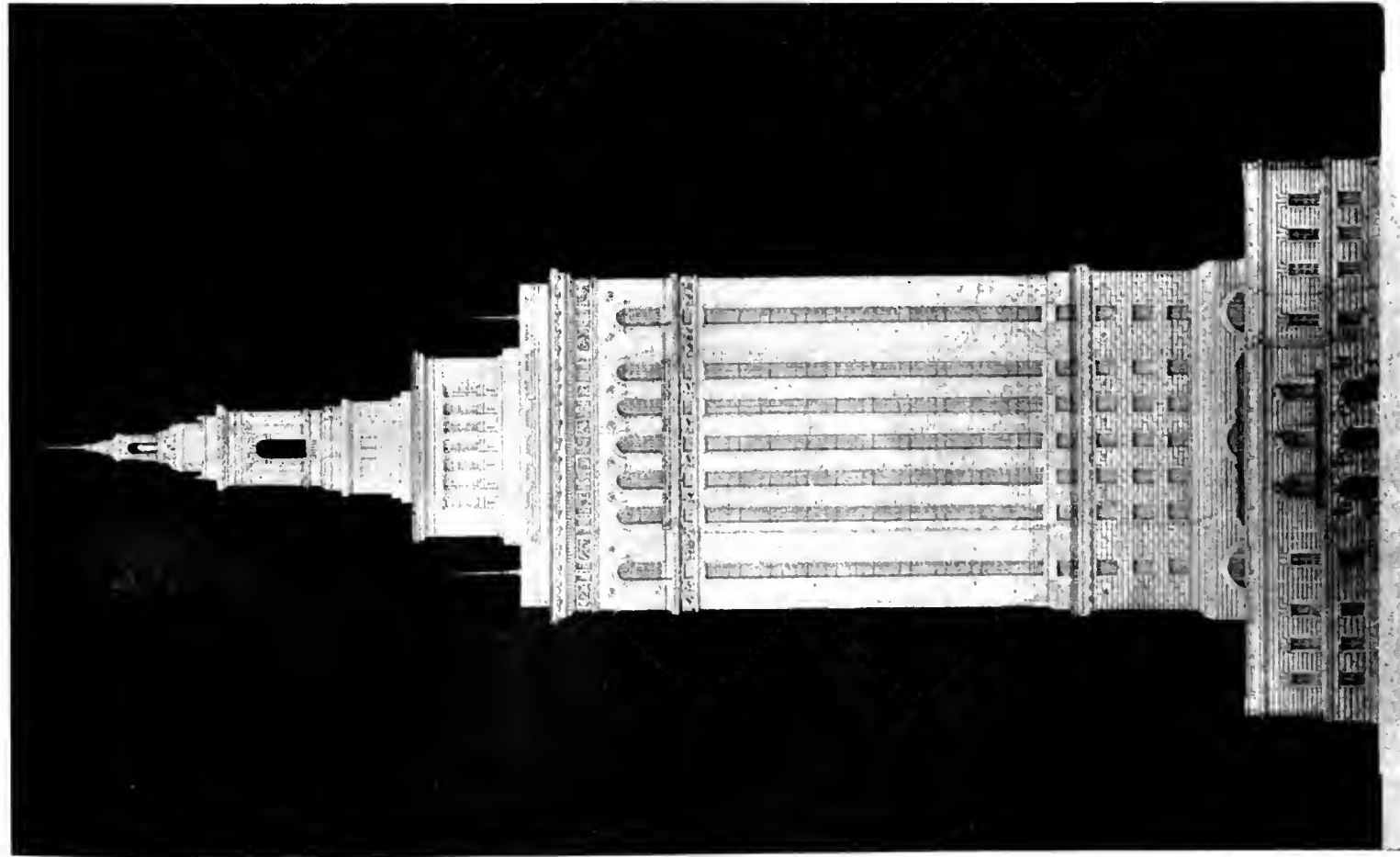
COMPETITION FOR THE PITTSBURGH COURT HOUSE-CITY HALL, PITTSBURGH, PA.

KIEHNEL & ELLIOTT, ARCHITECTS



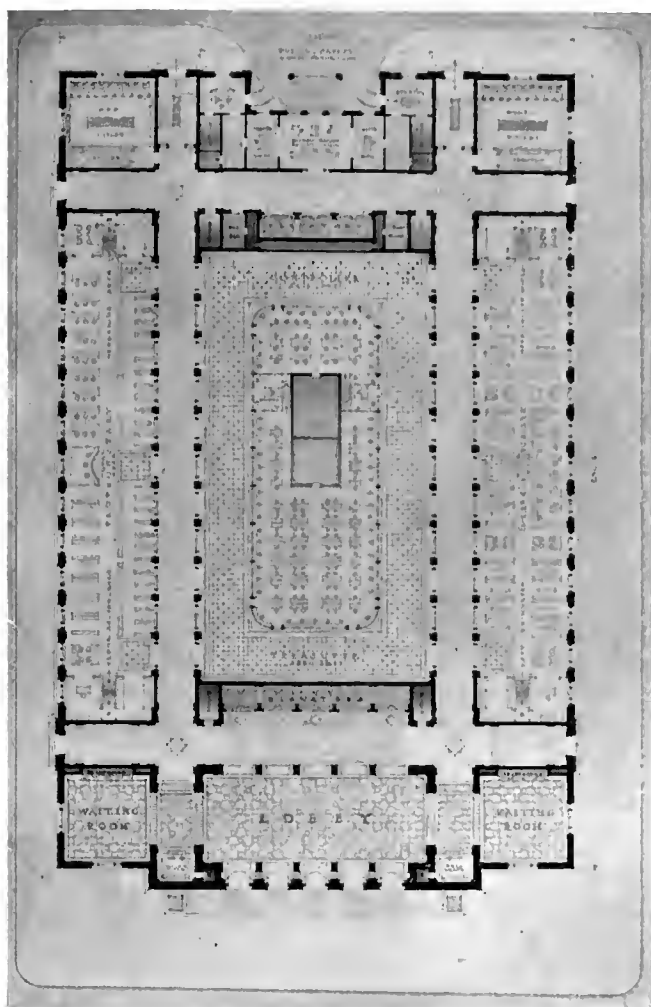
COMPETITION FOR THE PITTSBURGH COURT HOUSE-CITY HALL, PITTSBURGH, PA.

JANSSEN & ABBOTT, ARCHITECTS

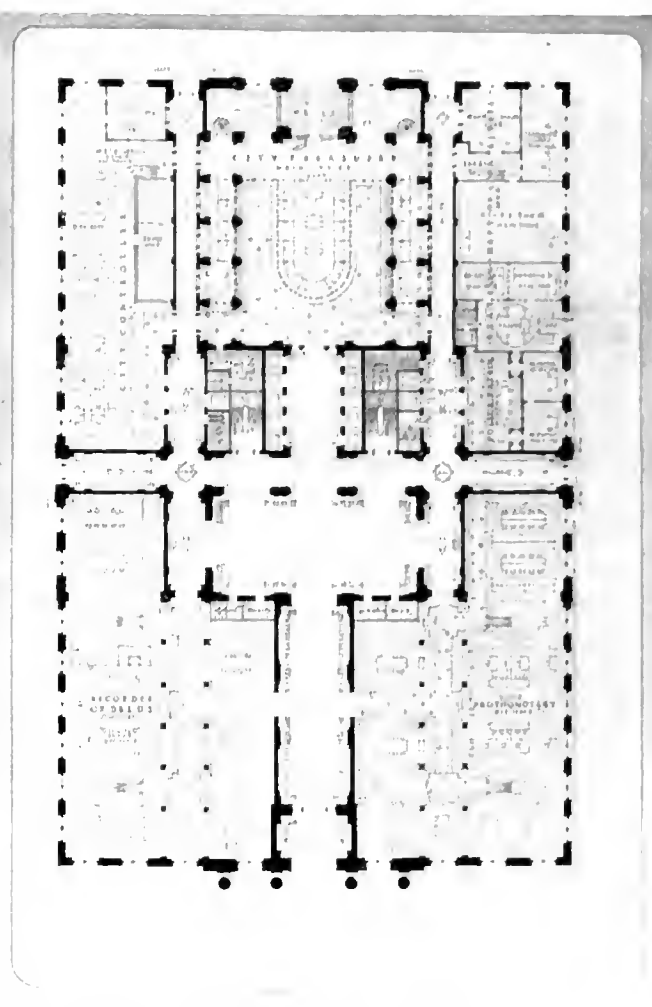


COMPETITION FOR THE PITTSBURGH COURT HOUSE-CITY HALL, PITTSBURGH, PA.

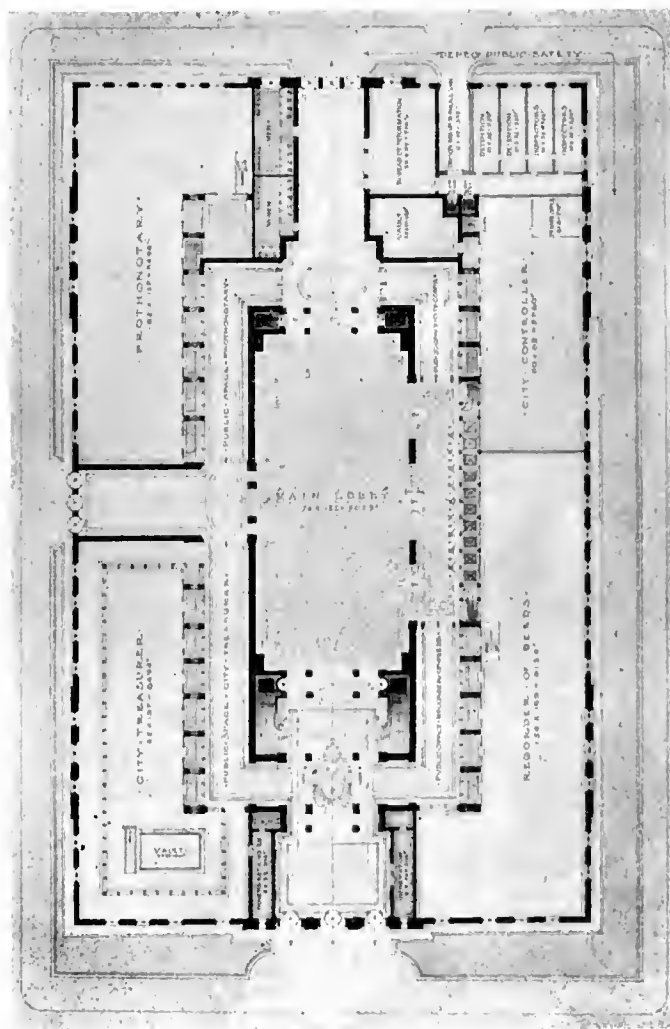
ROBERT MAURICE TRIMBLE, ARCHITECT



FIRST FLOOR PLAN
KIEHNEL & ELLIOT, ARCHITECTS

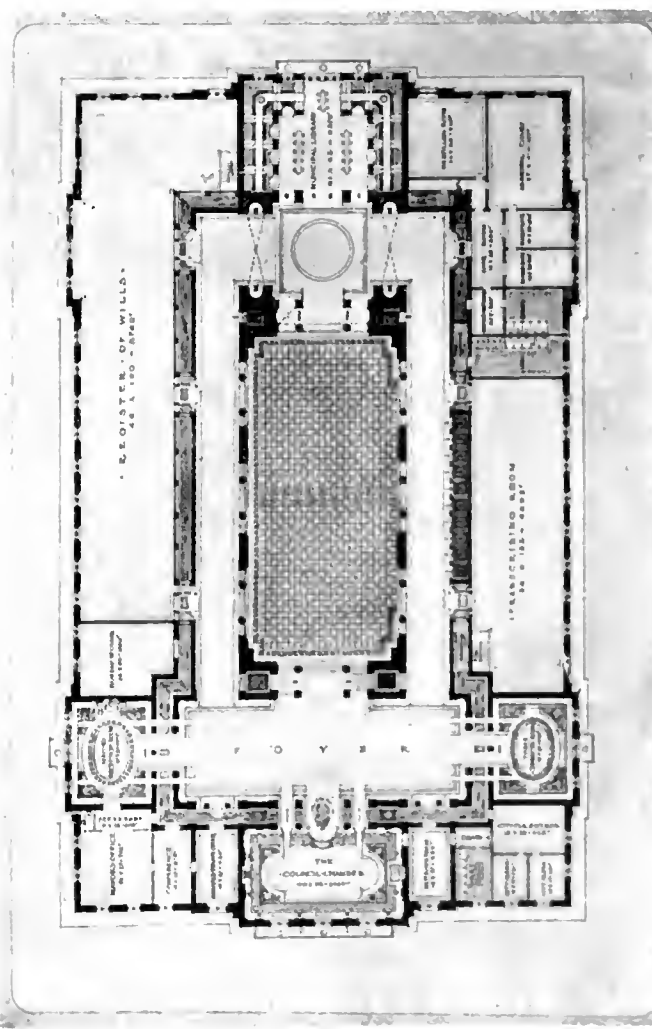


FIRST FLOOR PLAN
JANSSEN & ABBOTT, ARCHITECTS



FIRST FLOOR PLAN

ROBERT MAURICI TRIMBLE, ARCHITECT

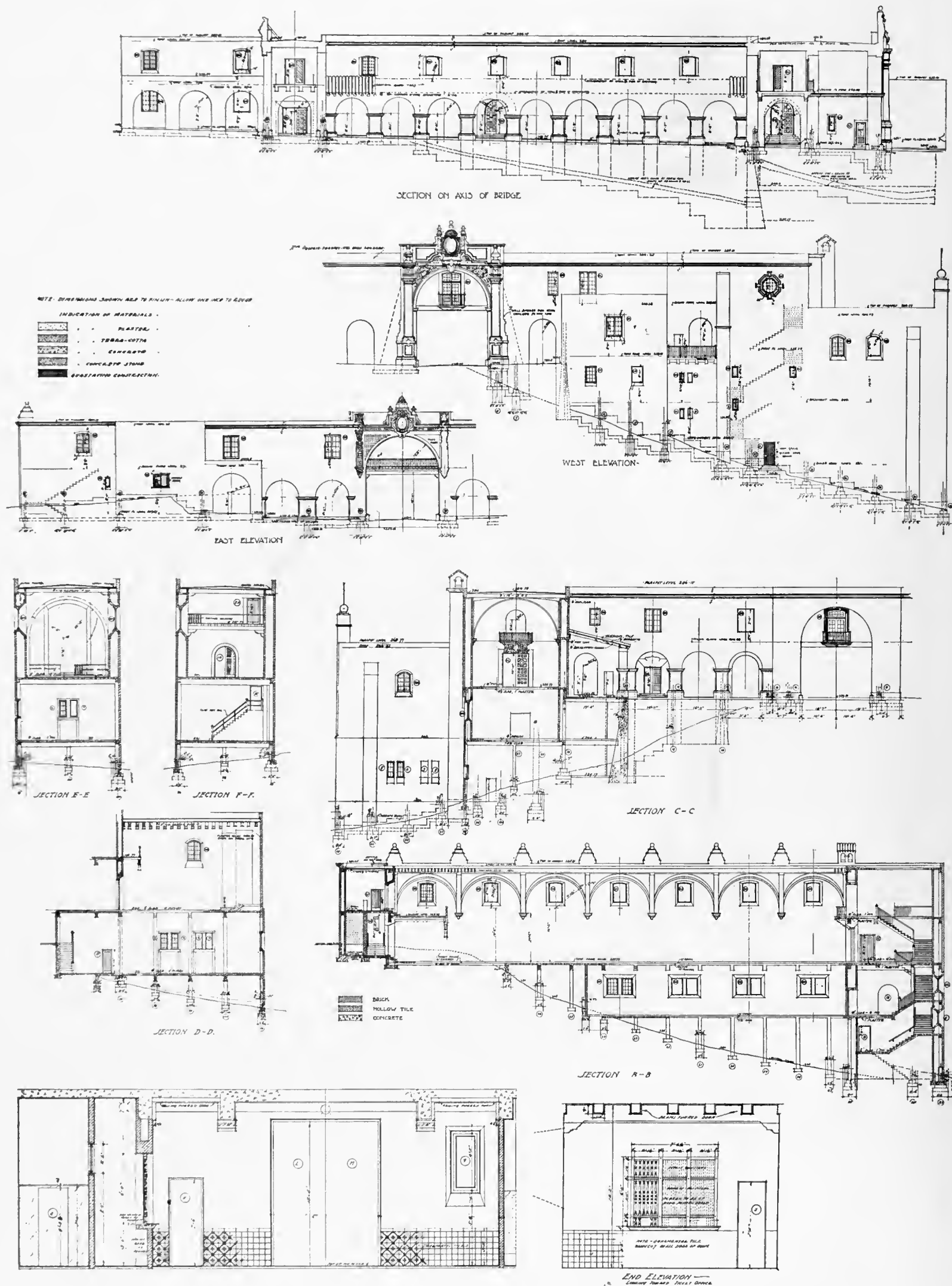


SECOND FLOOR PLAN

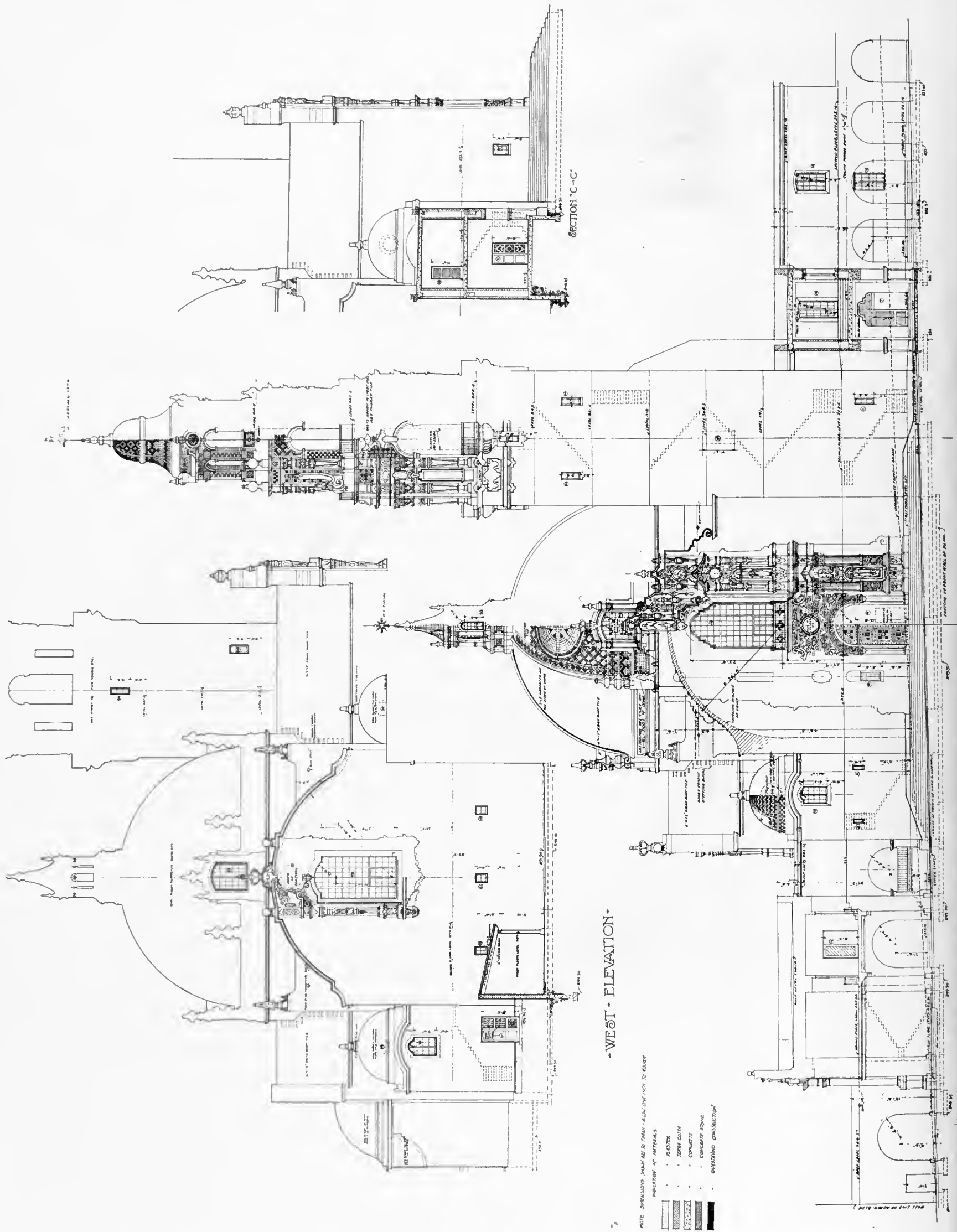
FIRST AND SECOND FLOOR PLANS, PERMANENT CALIFORNIA STATE AND FINE ARTS BUILDINGS, PANAMA-CALIFORNIA EXPOSITION, SAN DIEGO, CAL., 1915

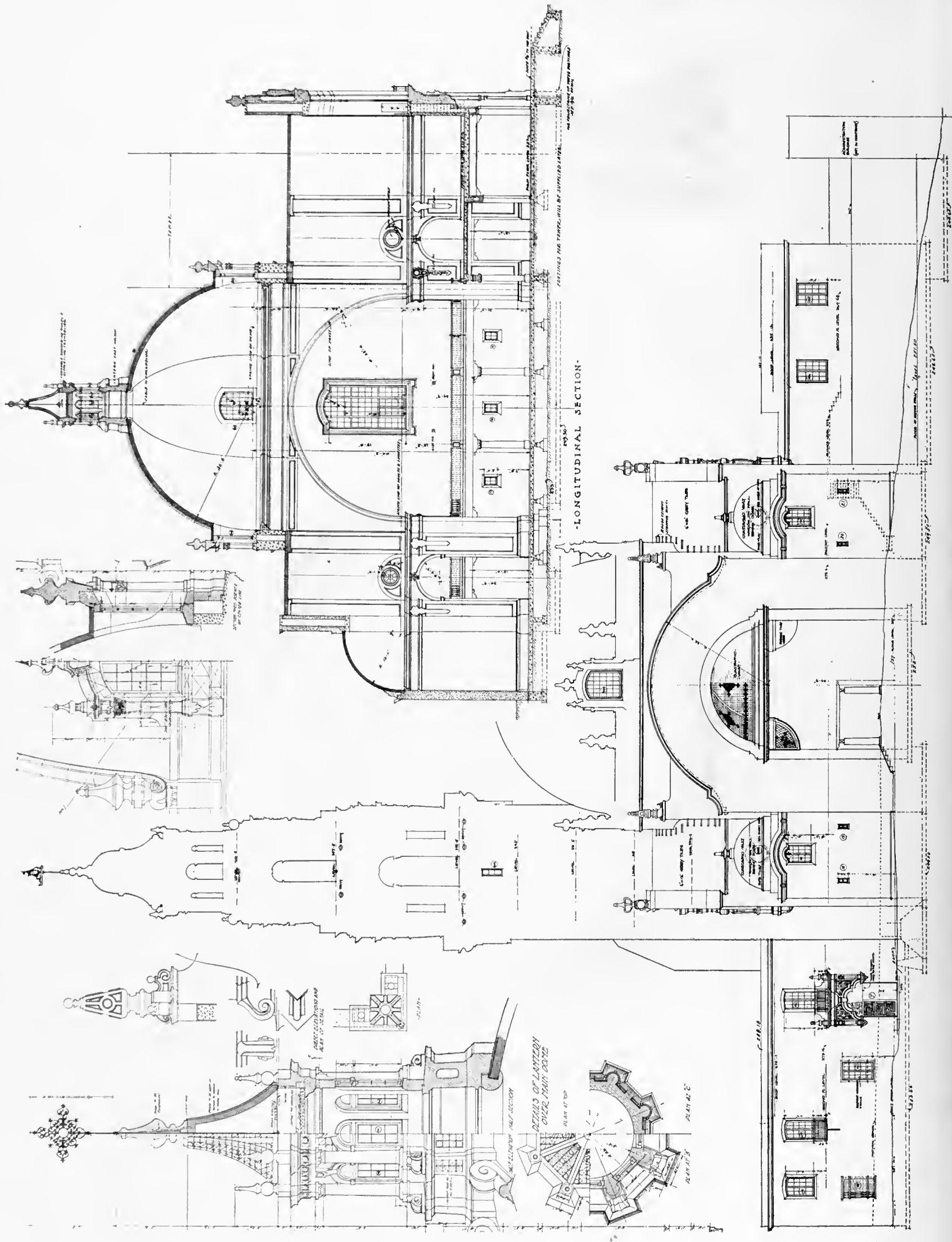
Cram, Goodhue & Ferguson, Architects, New York City

Bertram Grosvenor Goodhue, Advisory and Consulting Architect to the Exposition

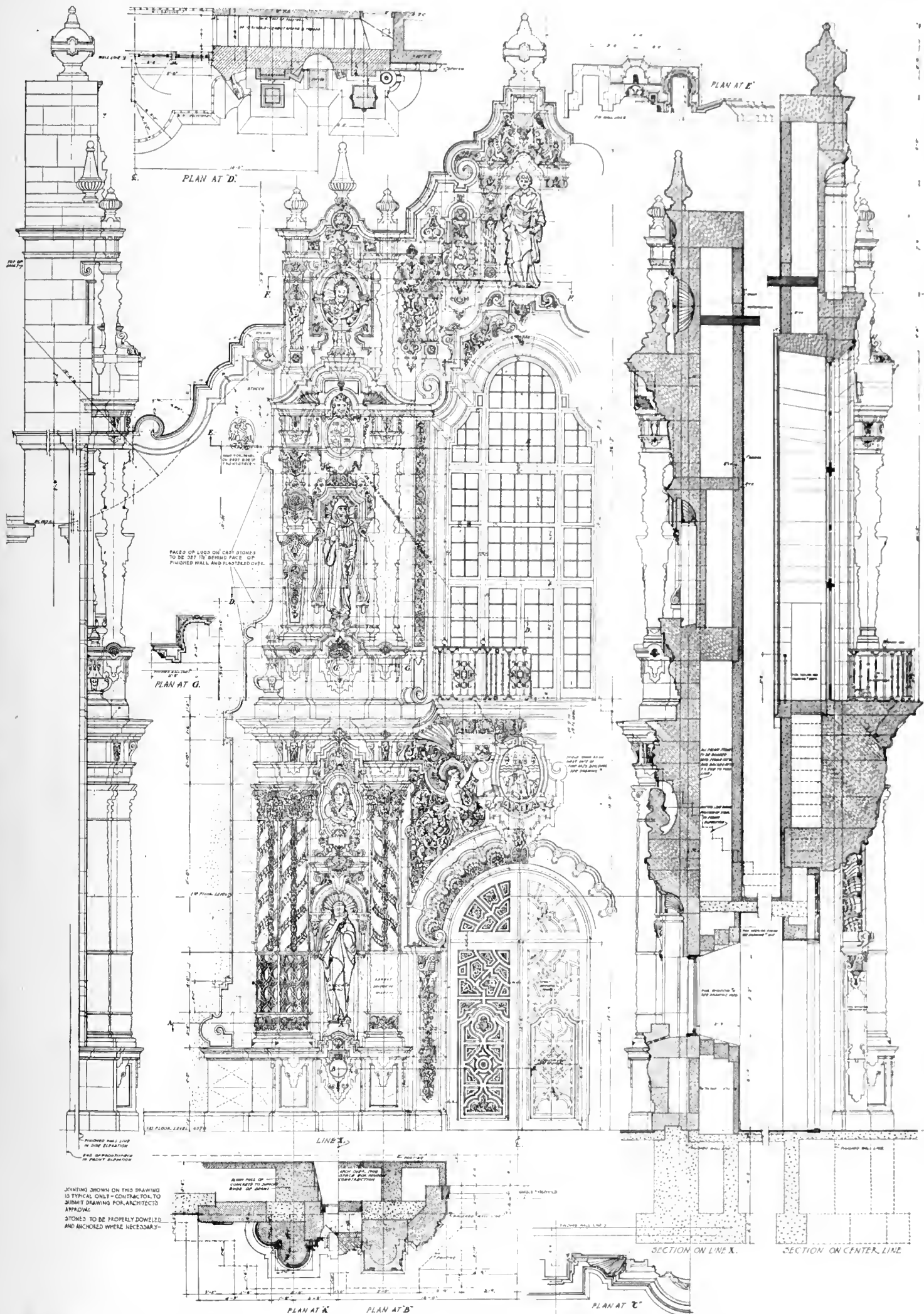


ELEVATIONS AND SECTIONS, PERMANENT FINE ARTS BUILDING, PANAMA-CALIFORNIA EXPOSITION, SAN DIEGO, CAL., 1915
 Cram, Goodhue & Ferguson, Architects, New York City
 Bertram Grosvenor Goodhue, Advisory and Consulting Architect to the Exposition





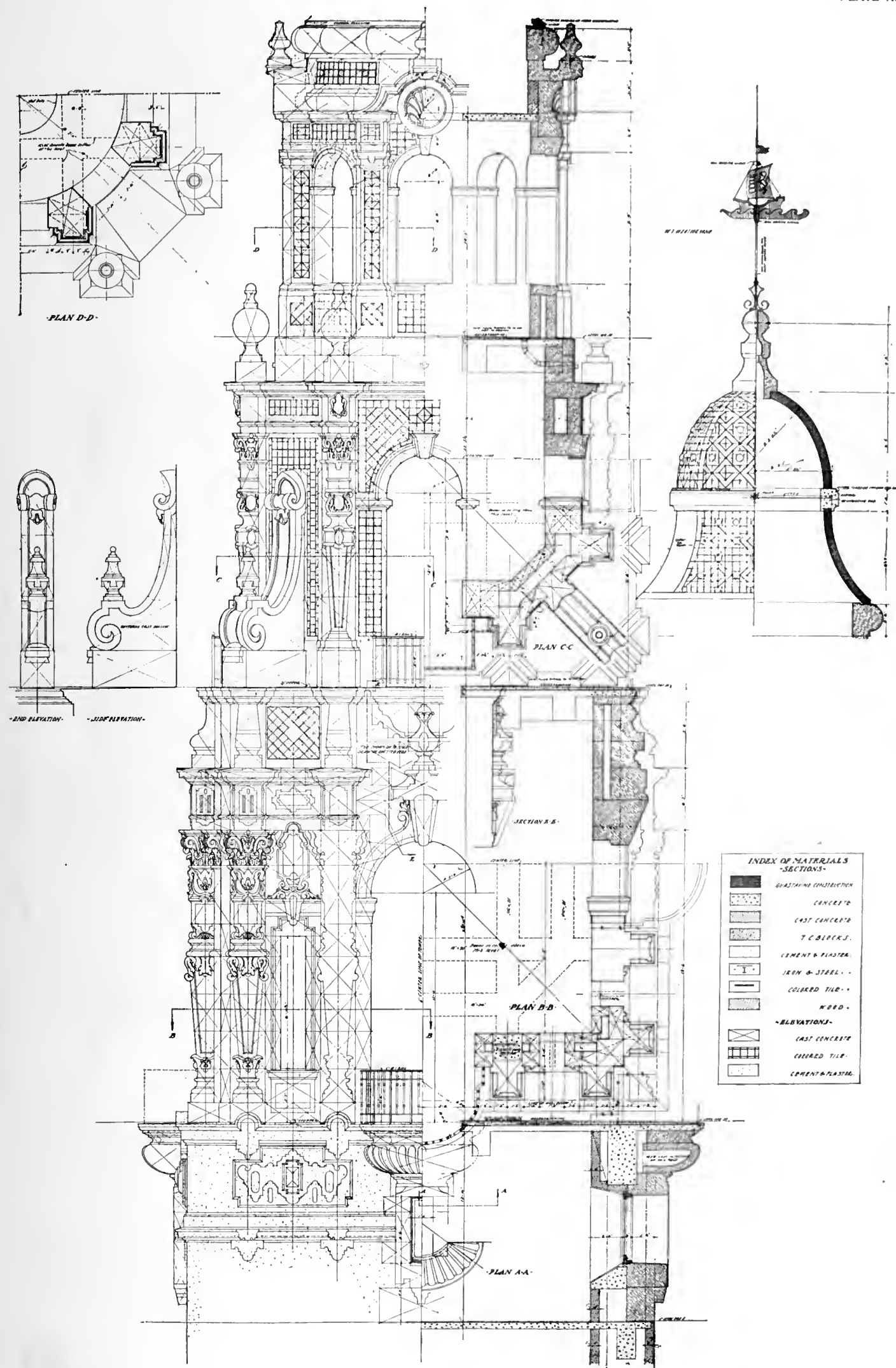
NORTH ELEVATION AND LONGITUDINAL SECTION, PERMANENT CALIFORNIA STATE BUILDING, PANAMA-CALIFORNIA EXPOSITION, SAN DIEGO, CAL., 1915



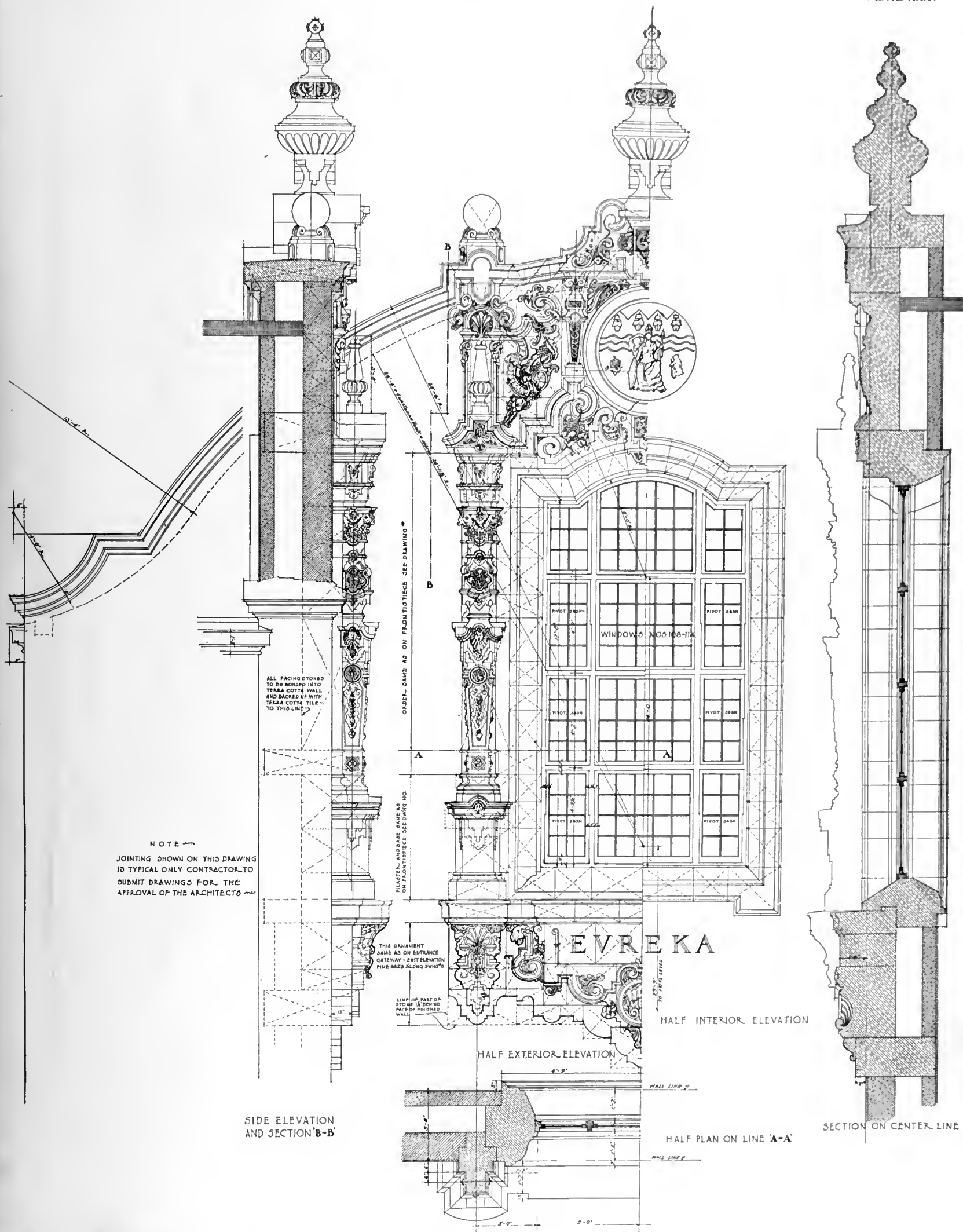
FRONTISPIECE AT ENTRANCE, PERMANENT CALIFORNIA STATE BUILDING, PANAMA-CALIFORNIA EXPOSITION, SAN DIEGO, CAL., 1915

Cram, Goodhue & Ferguson, Architects, New York City

Bertram Grosvenor Goodhue, Advisory and Consulting Architect to the Exposition

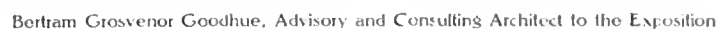


SCALE DETAIL OF UPPER PORTION OF TOWER, PERMANENT CALIFORNIA STATE BLDG., PANAMA-CALIFORNIA EXPOSITION, SAN DIEGO, CAL., 1915
 Cram, Goodhue & Ferguson, Architects, New York City
 Bertram Grosvenor Goodhue, Advisory and Consulting Architect to the Exposition



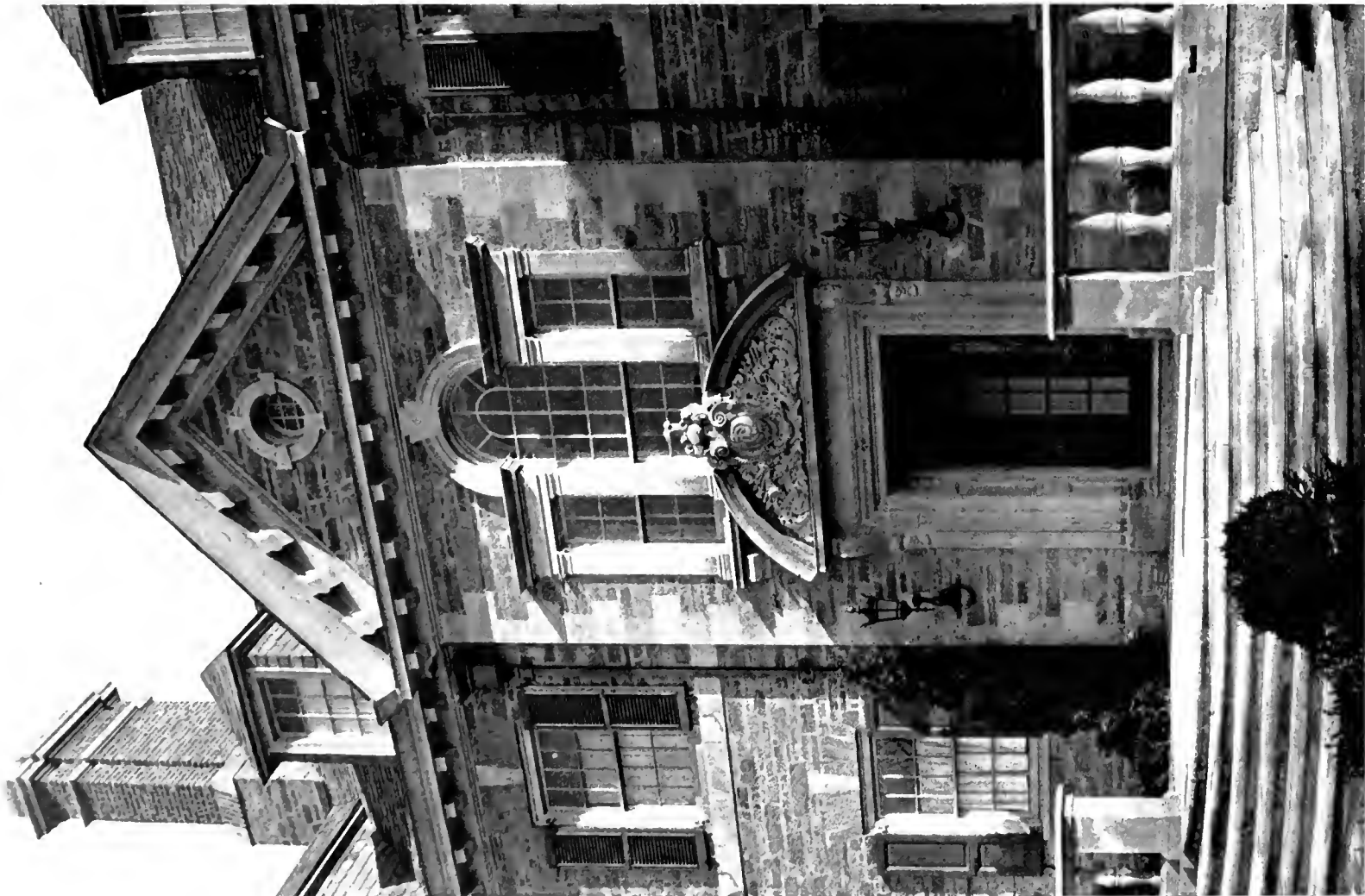
DETAIL OF EAST AND WEST WINDOWS, PERMANENT CALIFORNIA STATE BUILDING, PANAMA-CALIFORNIA EXPOSITION, SAN DIEGO, CAL., 1915
 Cram, Goodhue & Ferguson, Architects, New York City

Bertram Grosvenor Goodhue, Advisory and Consulting Architect to the Exposition





GENERAL VIEW
PRINCETON CHARTER CLUB, PRINCETON, N. J.
MELLOR & MEIGS, ARCHITECTS

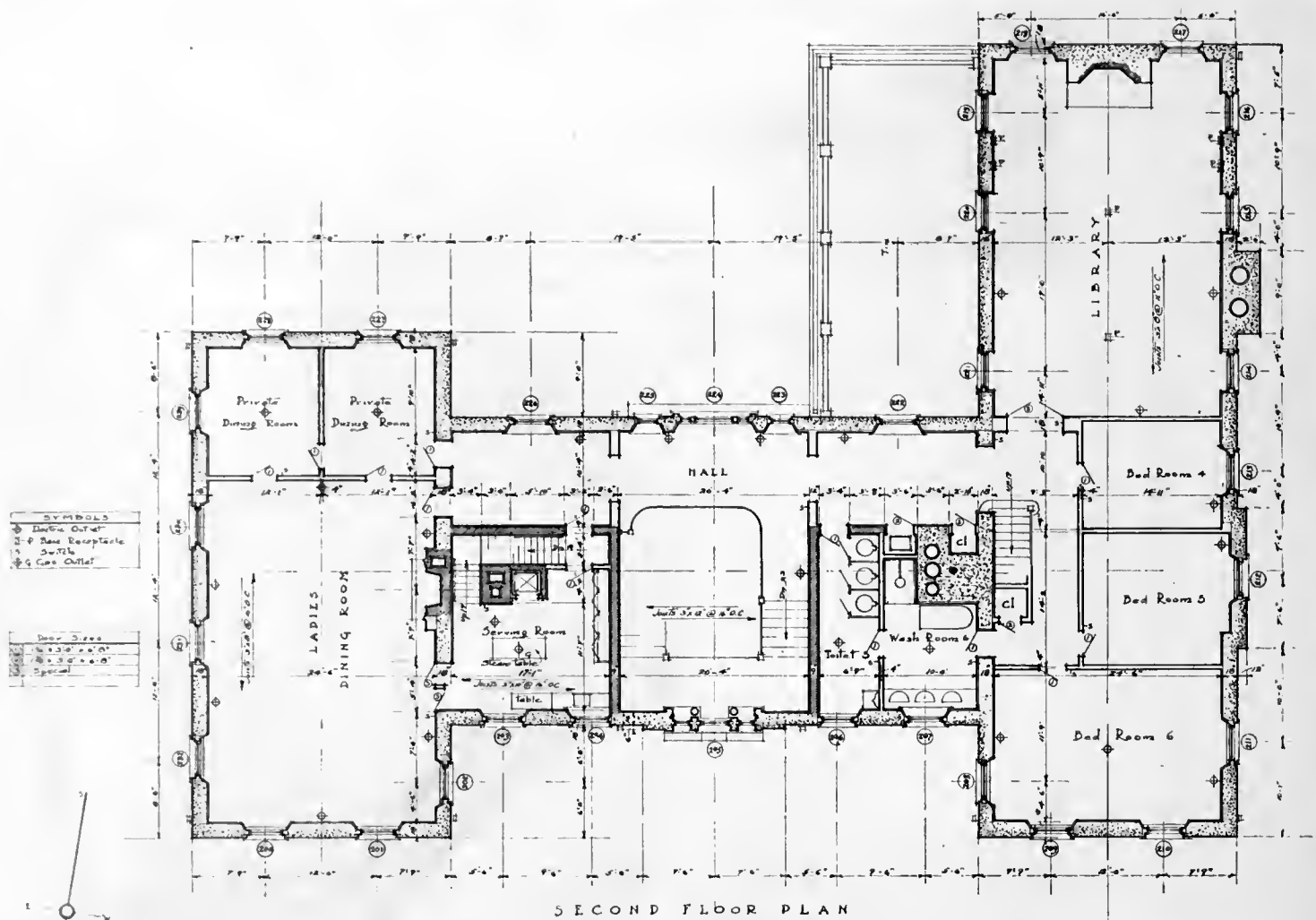


DETAIL OF FRONT ENTRANCE

PRINCETON CHARTER CLUB, PRINCETON, N. J.
MELLOR & NEIGS, ARCHITECTS



DETAIL OF TERRACE



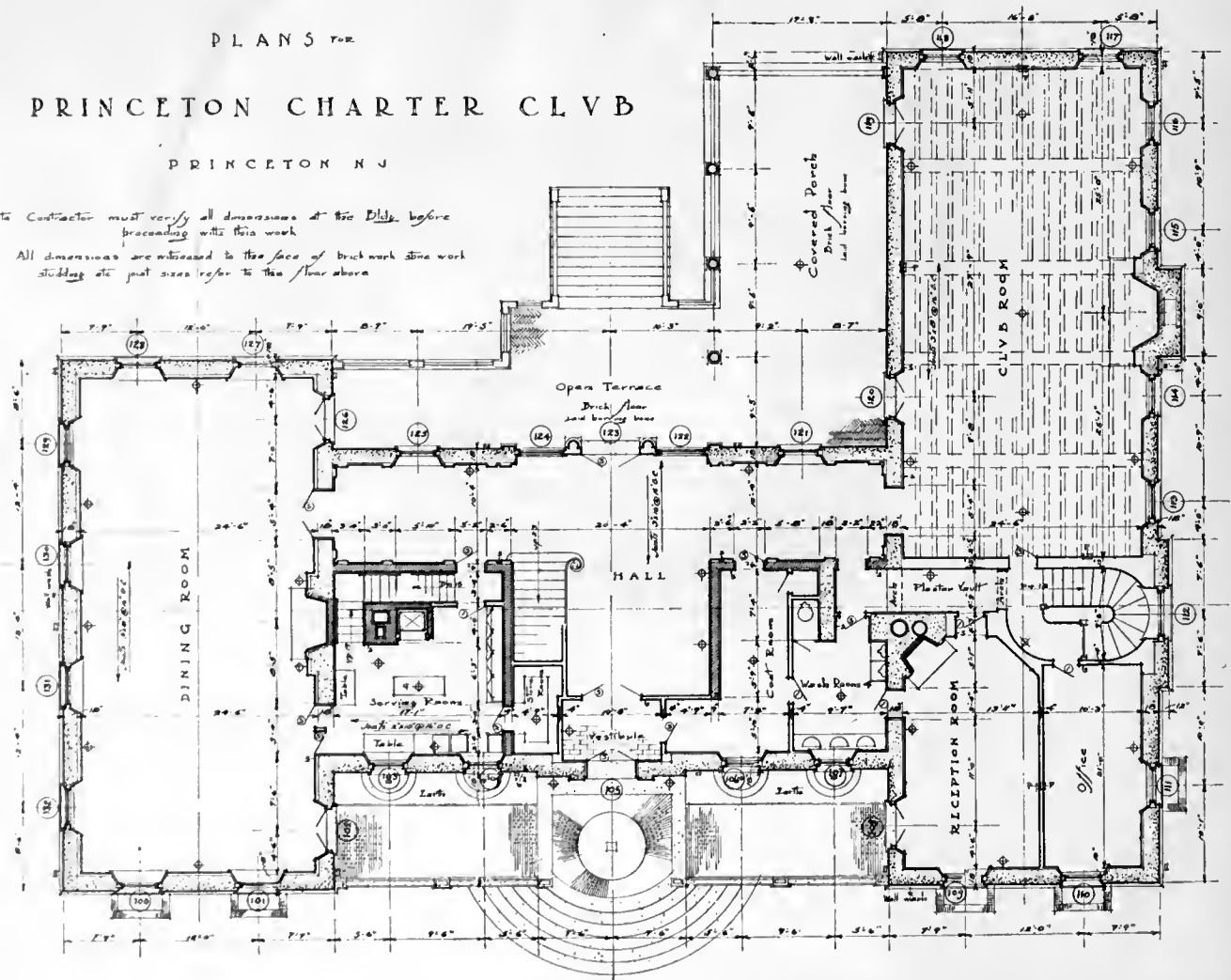
PLANS FOR

THE PRINCETON CHARTER CLUB

PRINCETON, N. J.

Note: Contractor must verify all dimensions at this Bldg. before proceeding with this work.

All dimensions are measured to the face of brick work stone work studding etc. just as they refer to this floor above.



FLOOR PLANS

PRINCETON CHARTER CLUB, PRINCETON, N. J.

MELLOR & MEIGS, ARCHITECTS



NORTH ELEVATION

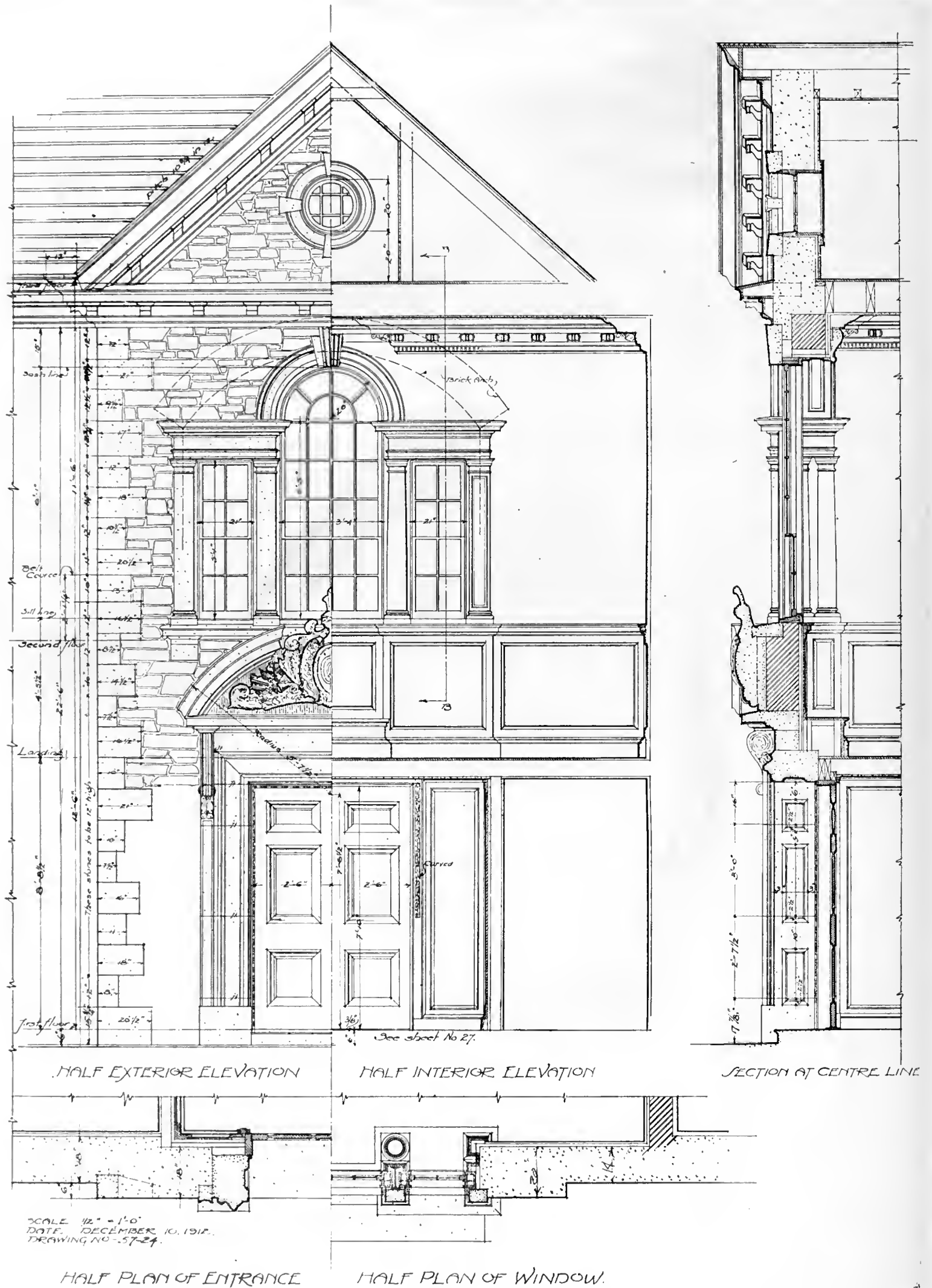


WEST ELEVATION

PRINCIPAL ELEVATIONS

PRINCETON CHARTER CLUB, PRINCETON, N. J.

MELLOR & MEIGS, ARCHITECTS

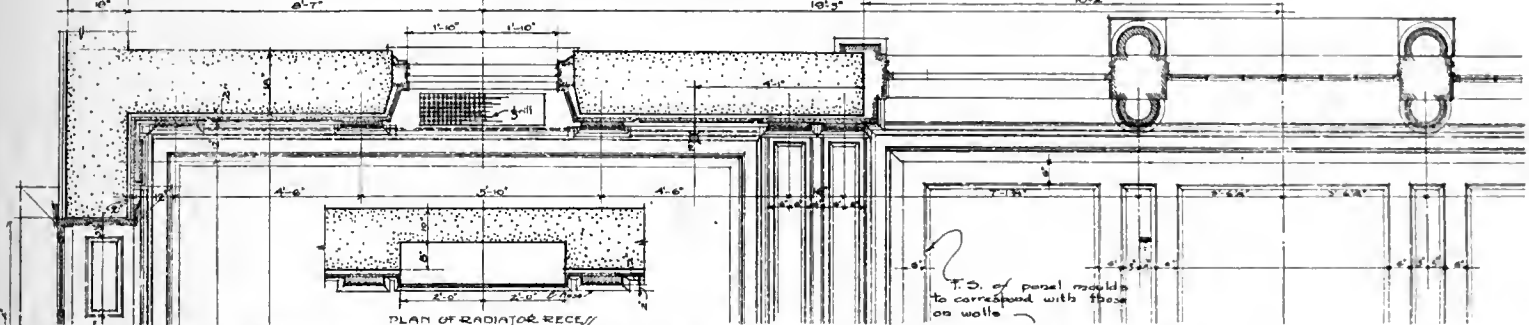


PRINCETON CHARTER CLUB, PRINCETON, N. J.

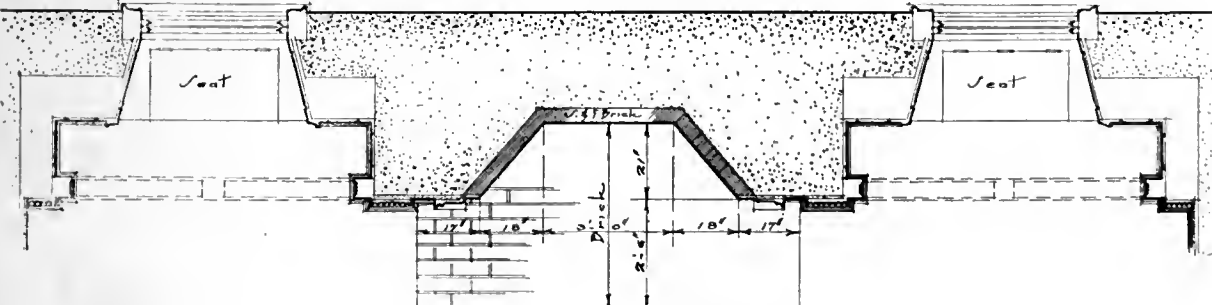
MELLOR & MEIGS, ARCHITECTS

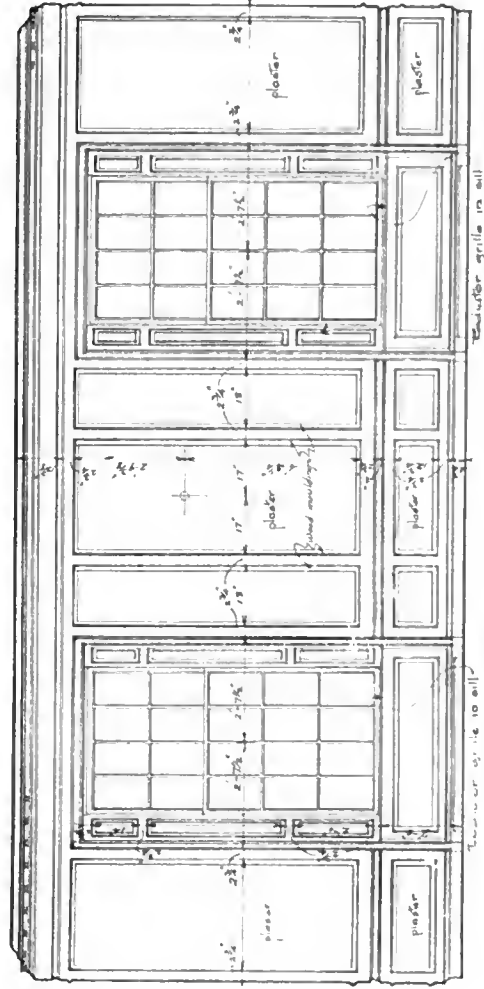
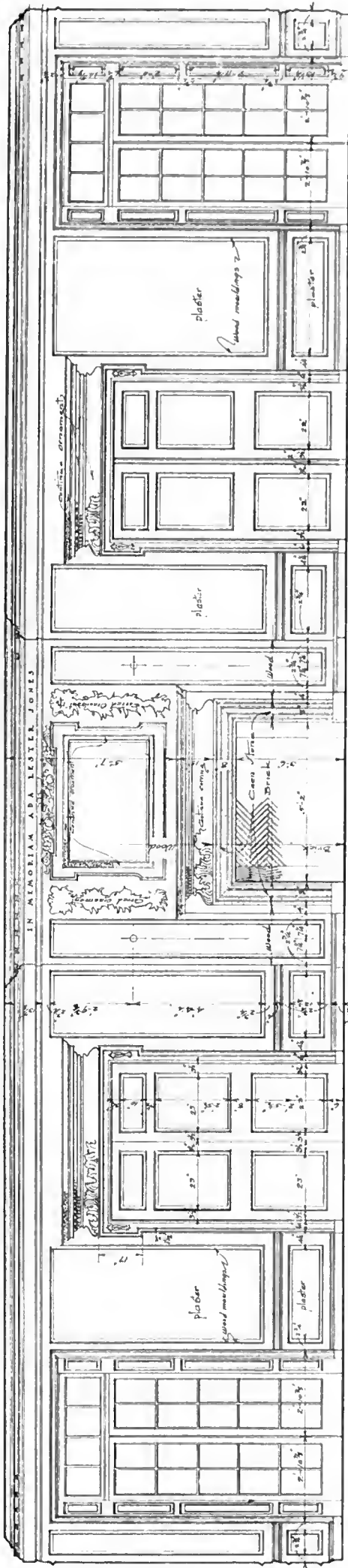
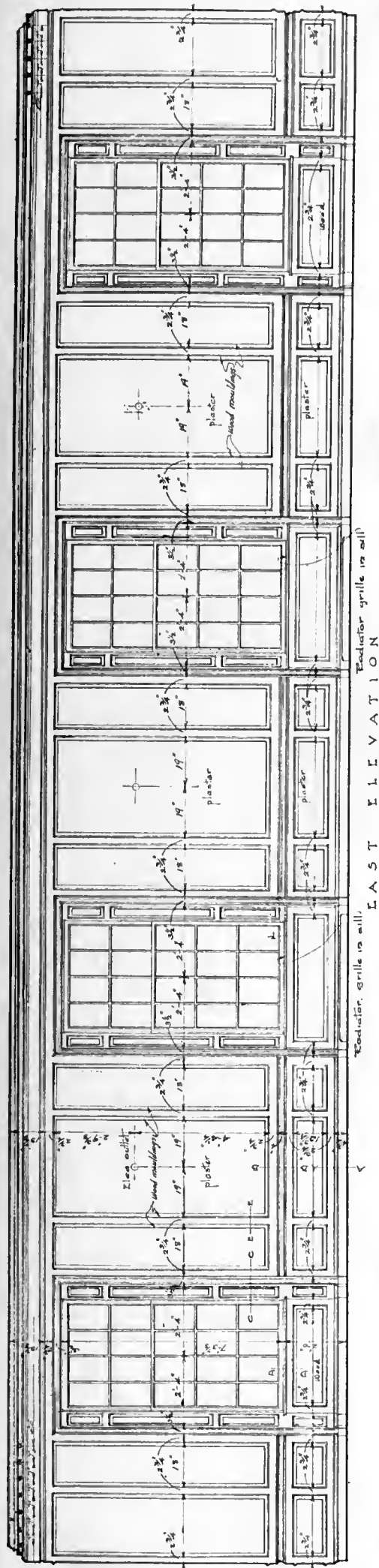


SOUTH ELEVATION OF HALL

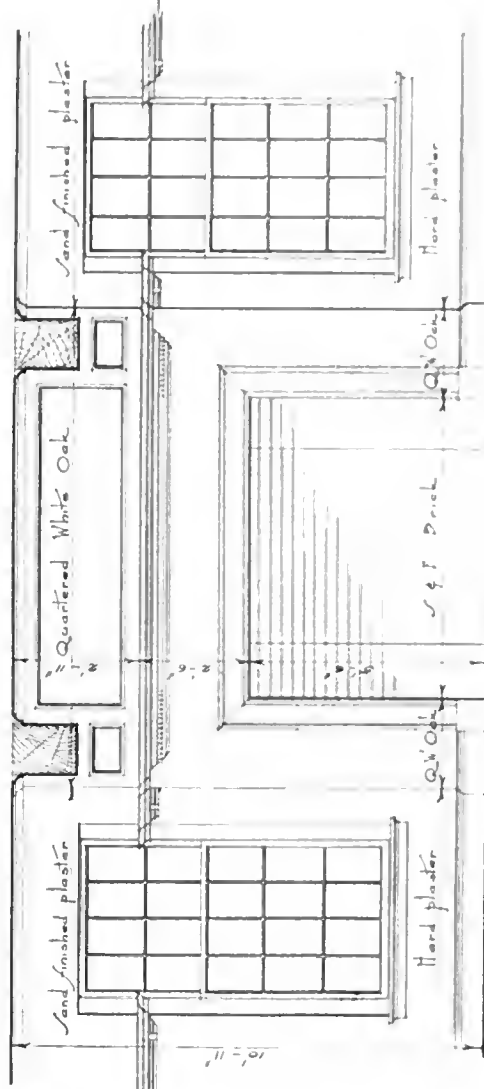


SOUTH ELEVATION OF LIBRARY

SECTION
thro' south arch



END ELEVATIONS
DINING ROOM



CLYD. ROOM. FIREPLACE.

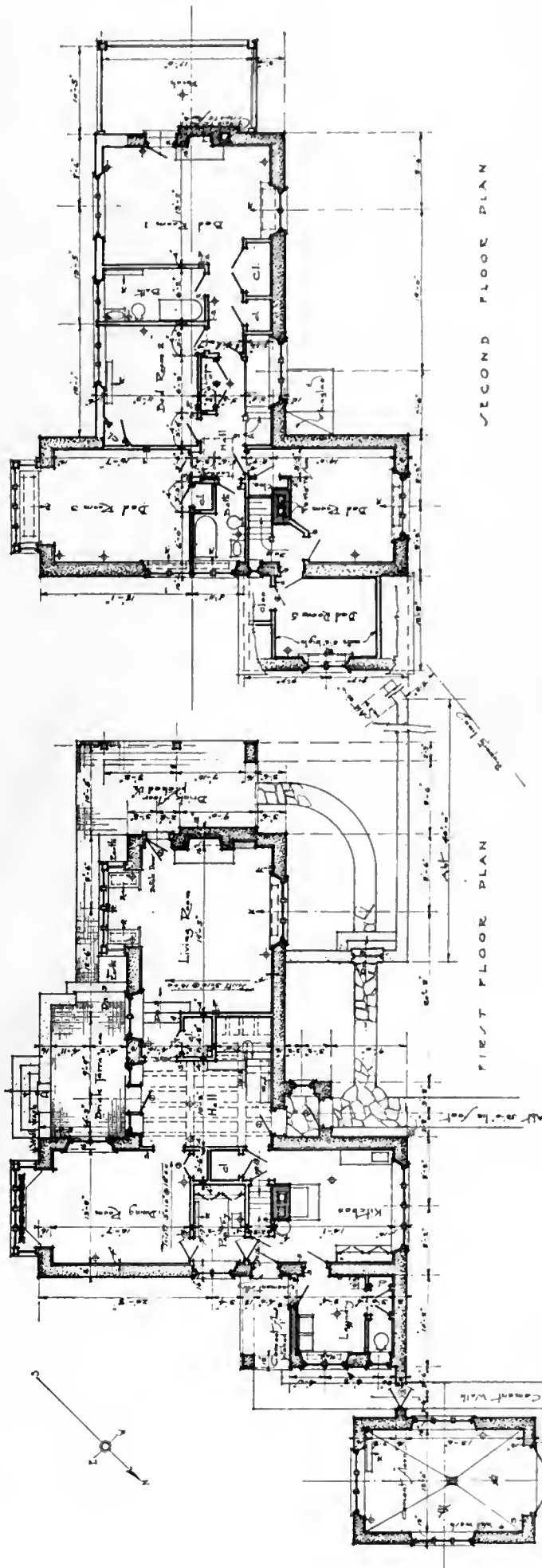
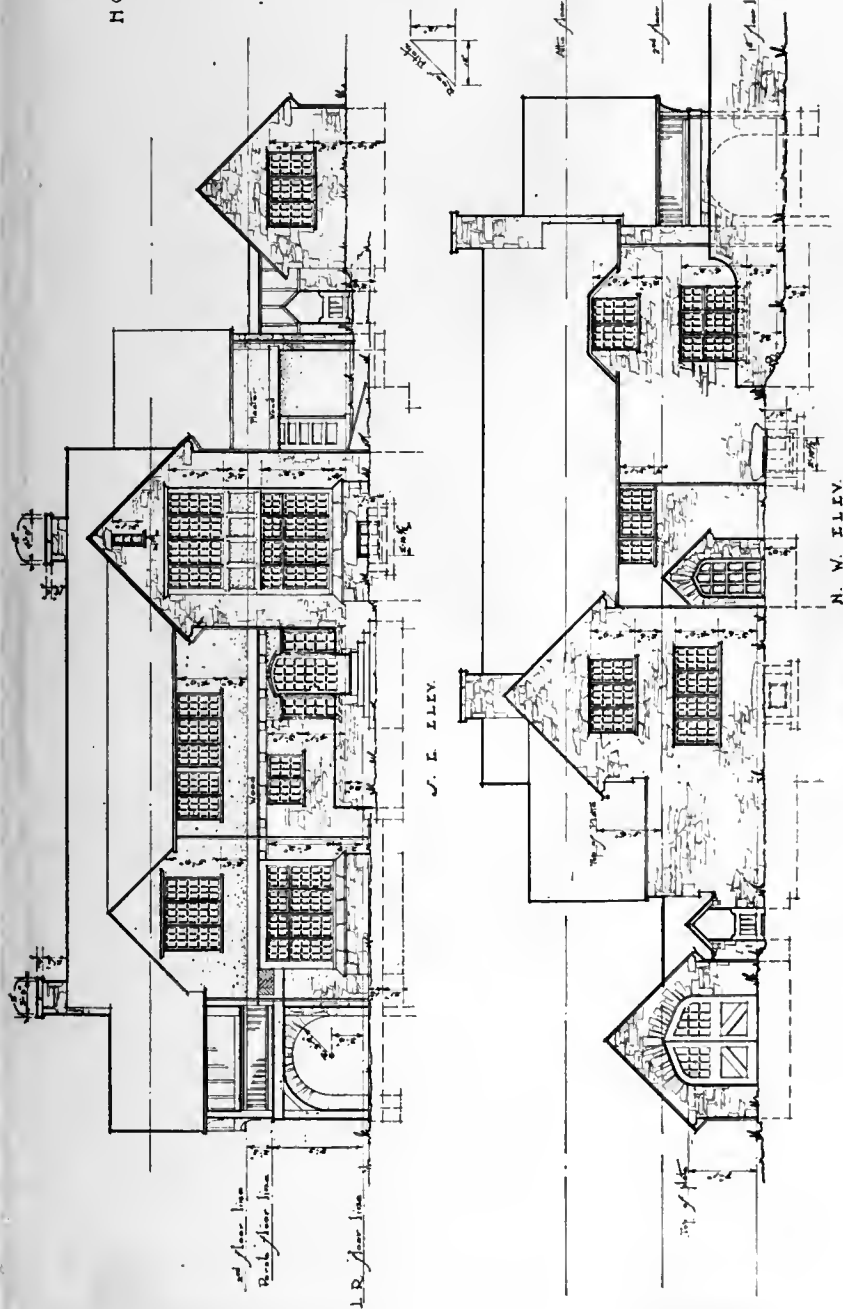
HOYSE AND GARAGE FOR LEONARD T BEALE ESQ

FOR

WILLIAM V. ALEXANDER ESQ.

ST. DAVIDS PA.

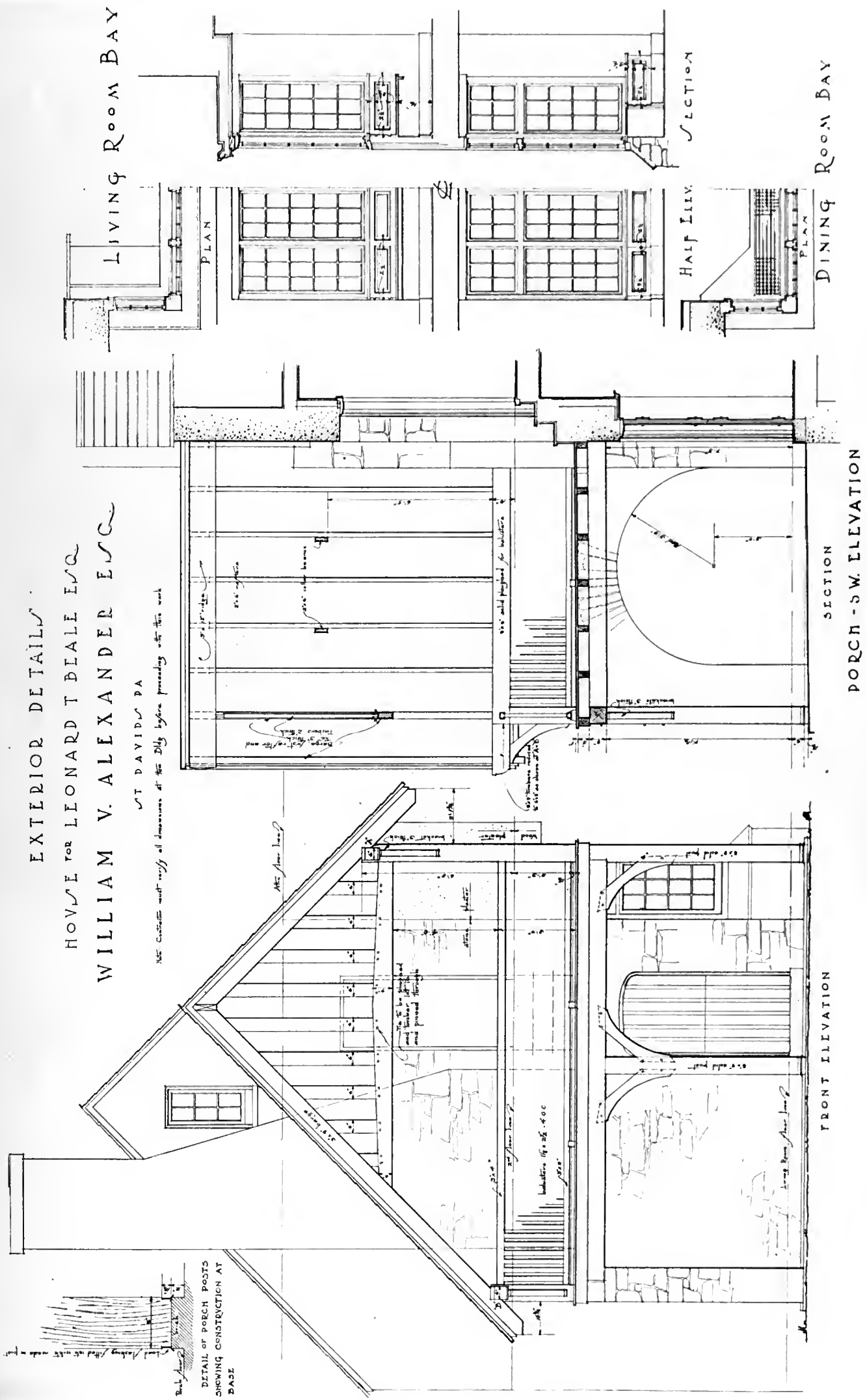
NOTE: Contractor must verify all dimensions at the D.D. & before proceeding with this work



PLANS AND ELEVATIONS

HOUSE FOR L. T. BEALE, ESQ., ST. DAVIDS, PA.

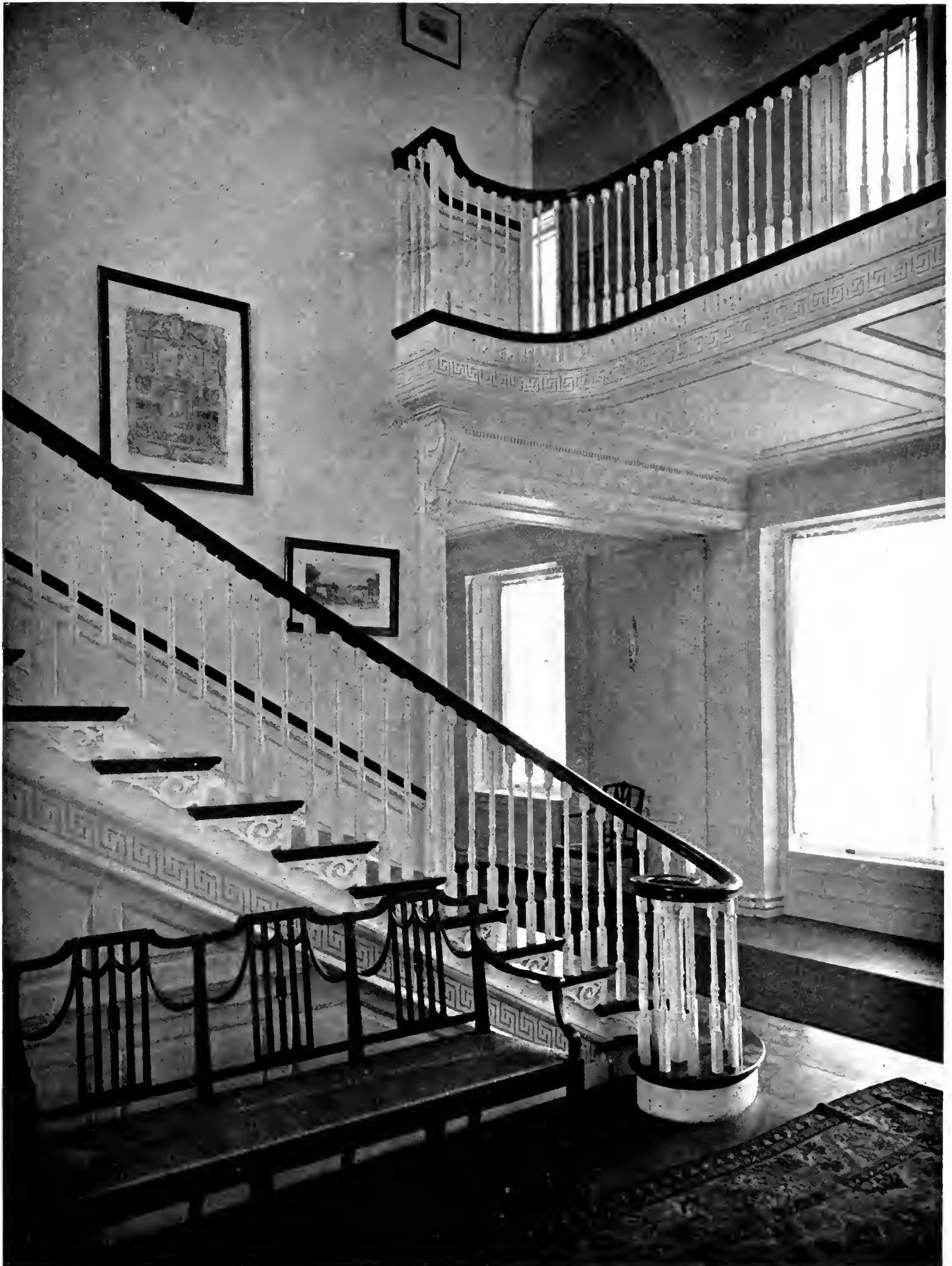
NELLOR & MEIGS, ARCHITECTS



SCALE. DRAWINGS OF BAYS

HOUSE FOR L. T. BEALE, ESQ., ST. DAVIDS, PA.

MELLOR & NEIGS, ARCHITECTS



DETAIL OF STAIR HALL
PRINCETON CHARTER CLUB, PRINCETON, N. J.
MELLOR & MEIGS, ARCHITECTS



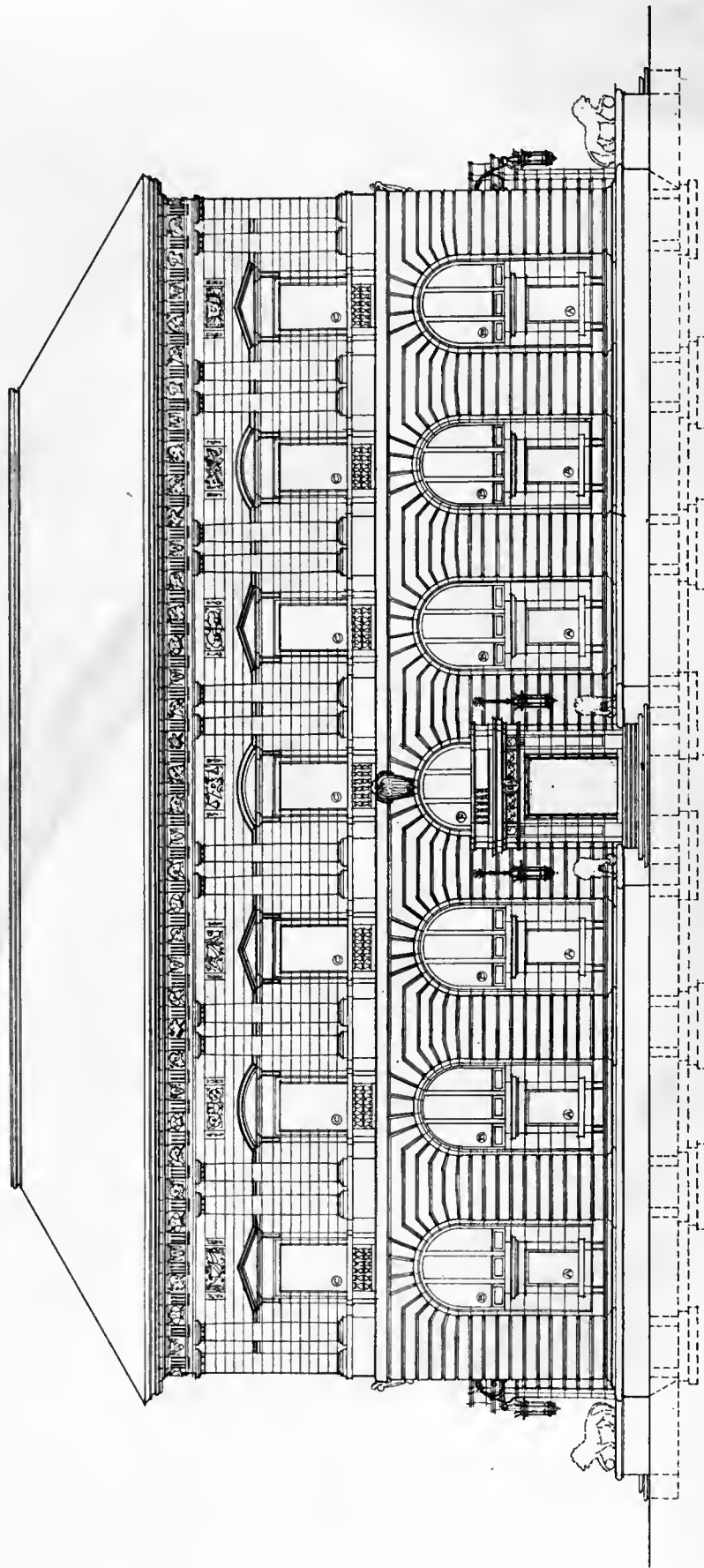
CLUBROOM FIREPLACE



DINING ROOM

PRINCETON CHARTER CLUB, PRINCETON, N. J.

MITCHELL & MEIGS, ARCHITECTS



HICKORY STREET, ELEVATION

- PVTNAM - COVNTY - COVRT - HOVS₀ - HOVS₁ -

APPROVED _____ INSPECTOR
DEPT. of INSPECTION WORK-
SHOP FACTORIES PUBLIC BUILDINGS

[illegible]

PRINCIPAL ELEVATION

PUTNAM COUNTY COURT-HOUSE, OTTAWA, O.

FRANK L. PACKARD, ARCHITECT; RALPH SNYDER, ASSOCIATE; E. F. BABBITT, ENGINEER

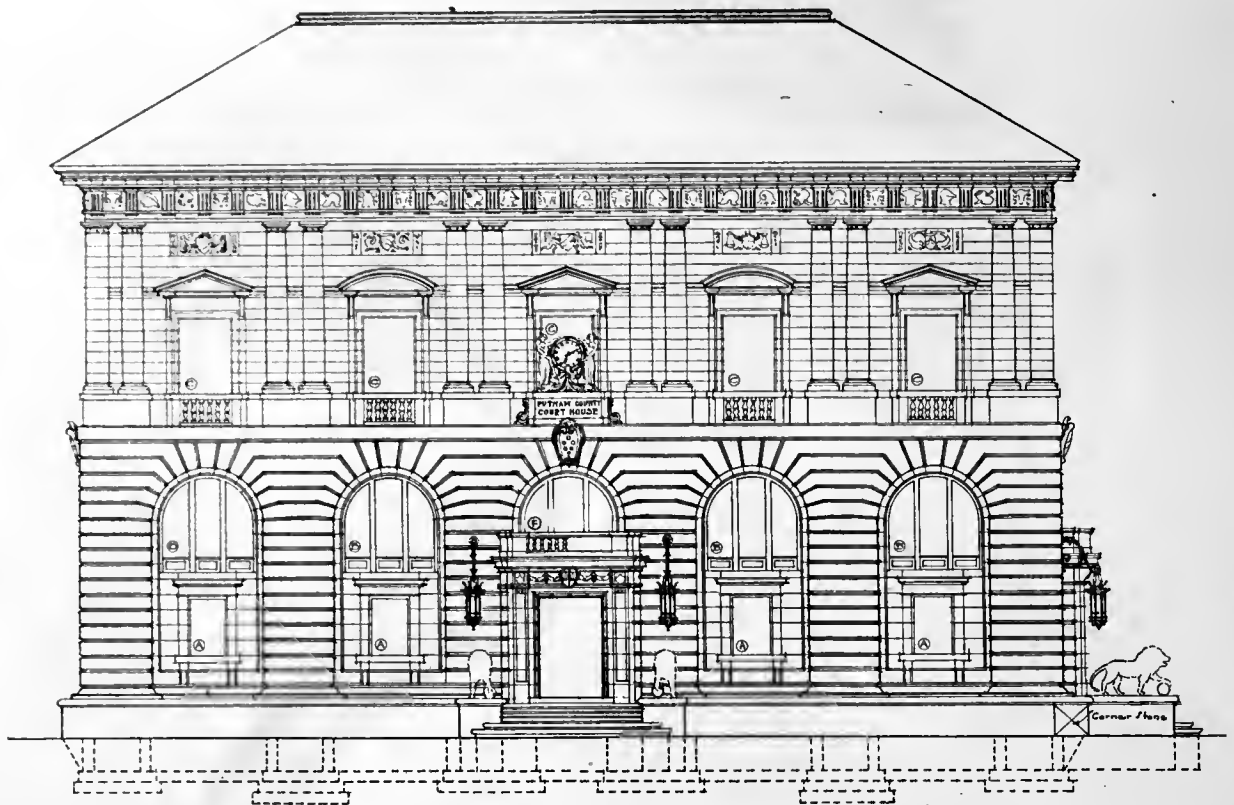
APPROVED.
INSTRUCTOR.
DEPT. of INSPECTION WORK.
SCHOOL OF ARCHITECTURE, PUBLIC BUILDINGS.

PUTNAM COUNTY COURT-HOUSE.

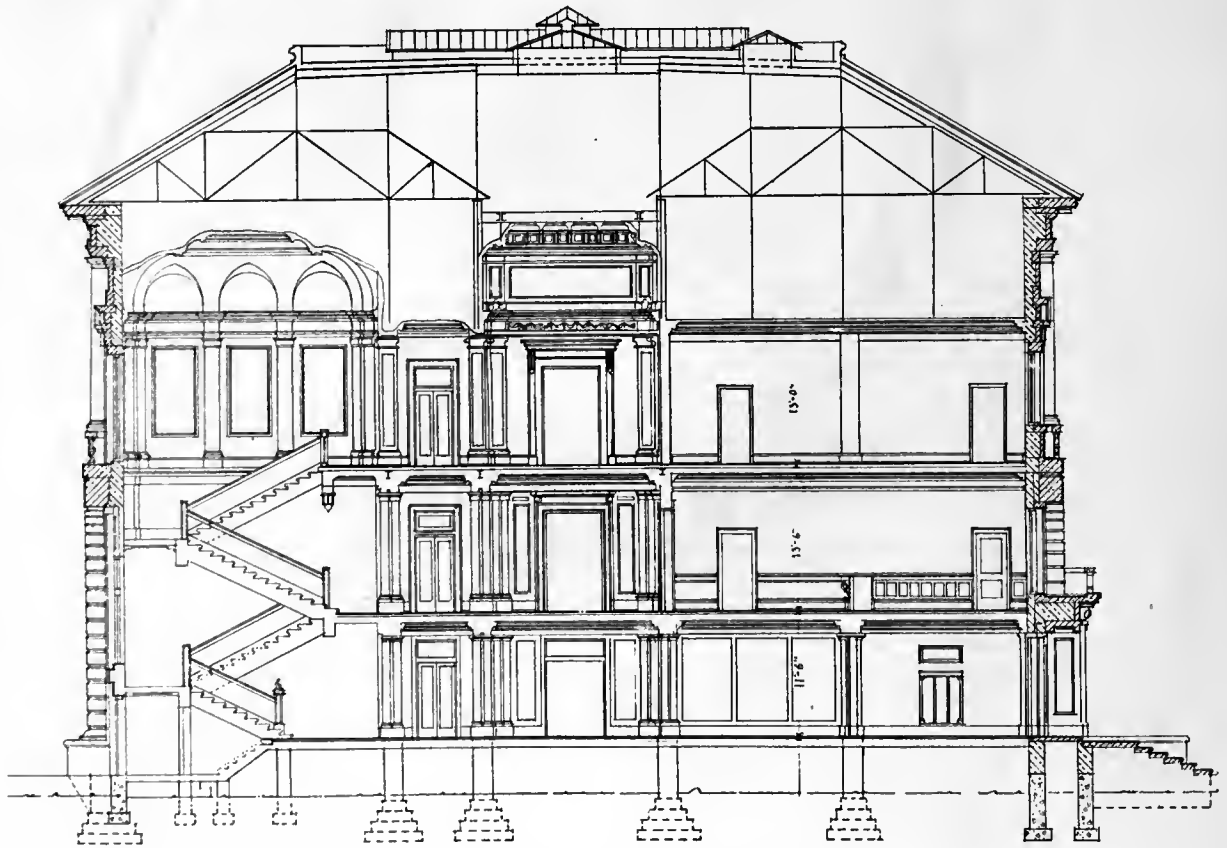
FRANK L. PACKARD, ARCHT.
R. SNYDER, ASSOCIATE.
E. F. BABBITT, ENGINEER.

APPROVED BY
COMMISSIONER

CONTINUED
SHEET
8



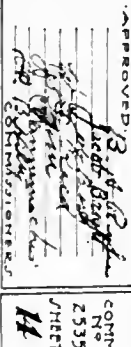
MAIN STREET ELEVATION.
SCALE 1/8" = 1' 0"



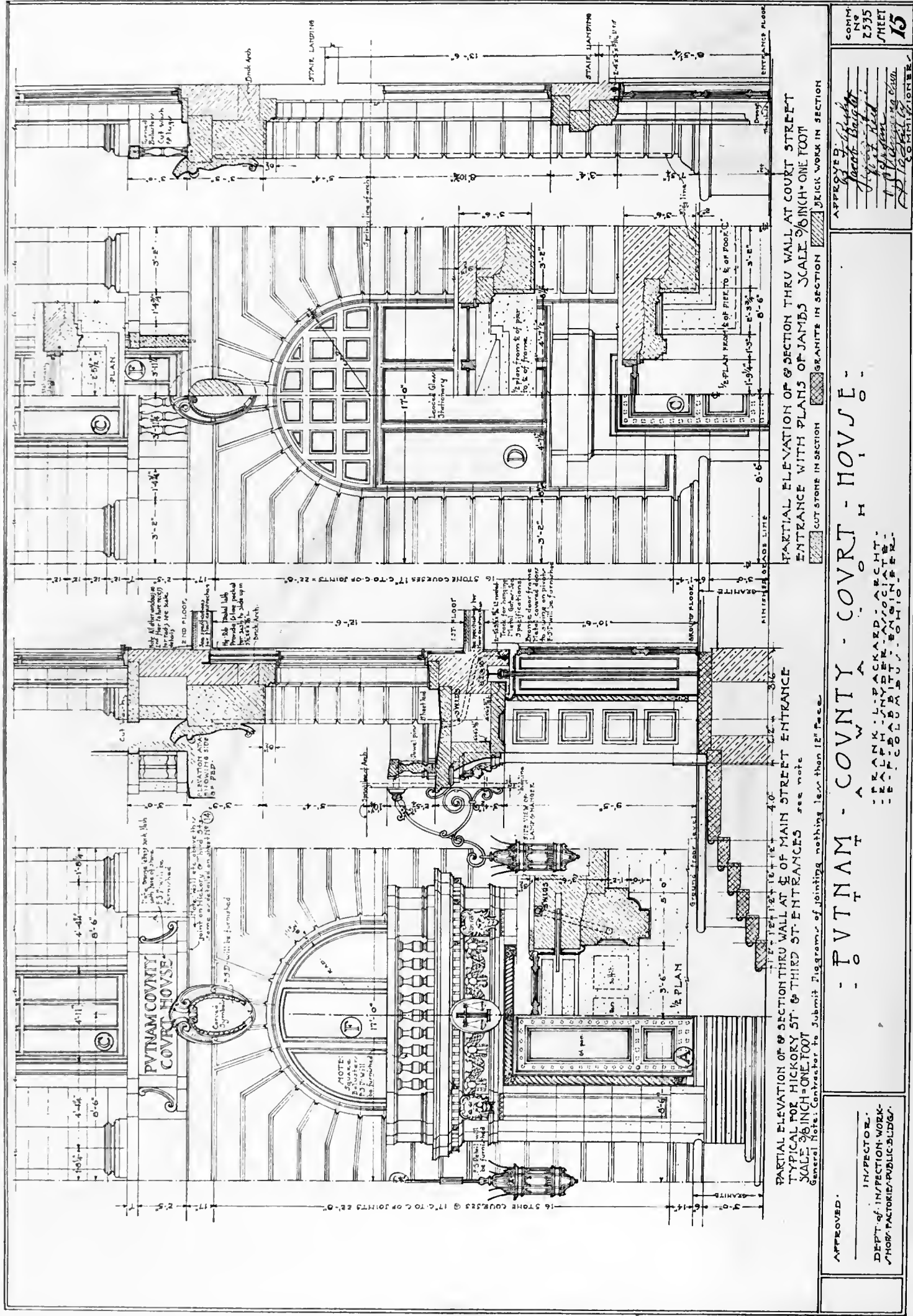
TRANSVERSE SECTION D-D.
SCALE 1/8" = 1' 0"

END ELEVATION AND TRANSVERSE SECTION
PUTNAM COUNTY COURT-HOUSE, OTTAWA, O.

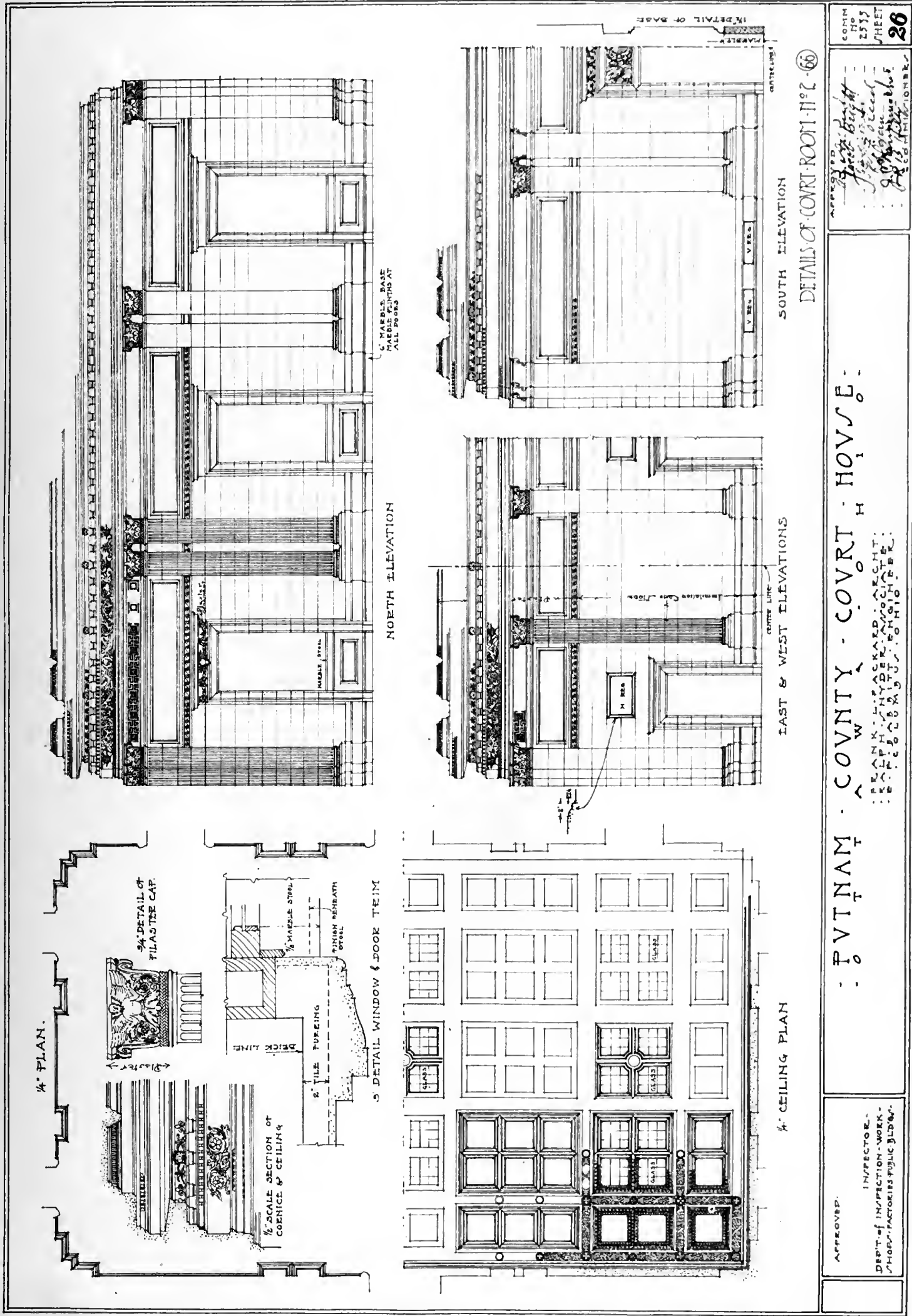
FRANK L. PACKARD, ARCHITECT; RALPH SNYDER, ASSOCIATE; E. F. BABBITT, ENGINEER



FRANK L. PACKARD, ARCHITECT; RALPH SNYDER, ASSOCIATE; E. F. BABBITT, ENGINEER



FRANK L. PACKARD, ARCHITECT; RALPH SNYDER, ASSOCIATE; E. F. BABBITT, ENGINEER

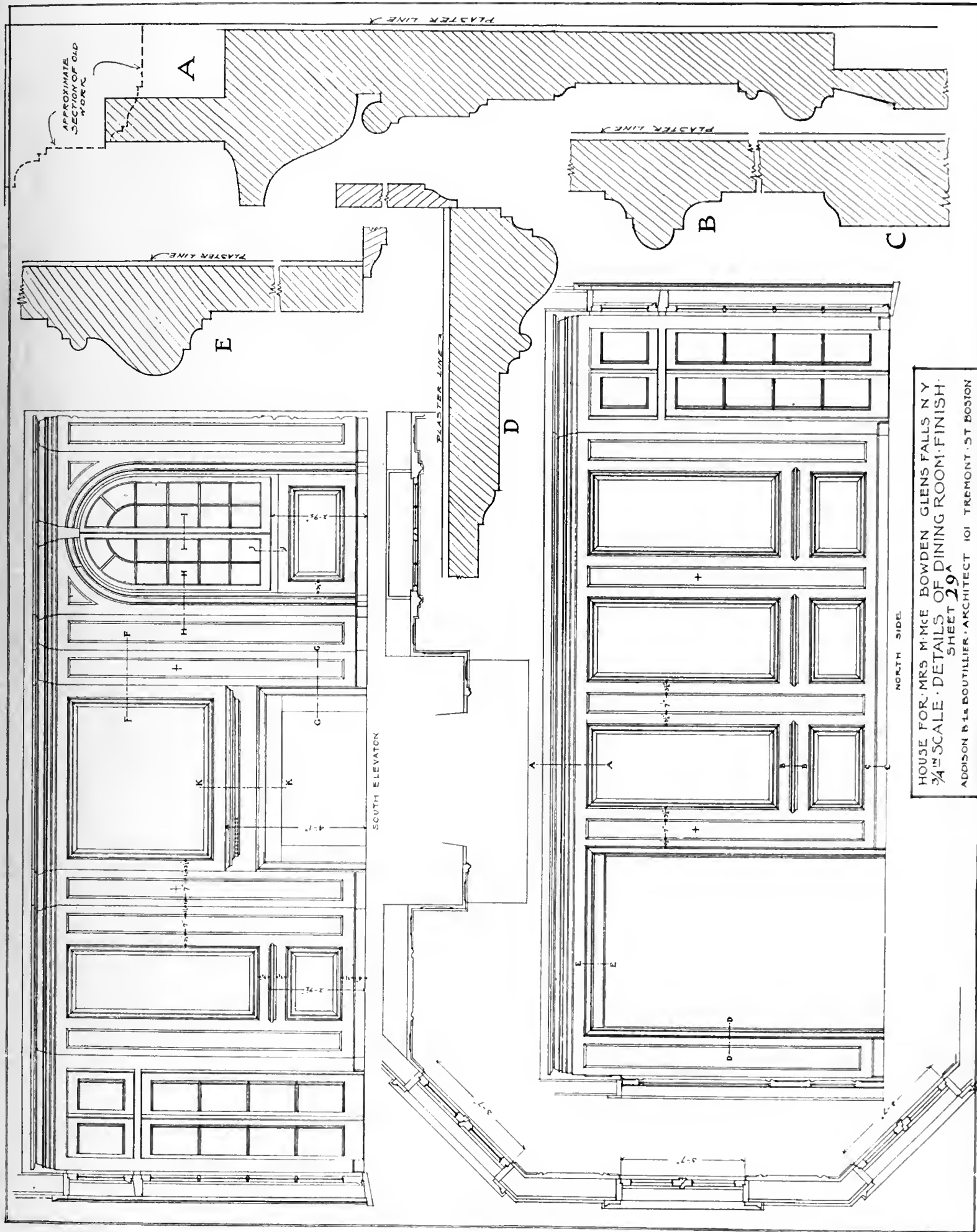


APPROVED
INSPECTOR
DEPT. OF INSPECTION - WORK -
HOBBS - FACTORIES PUBLIC BLDG.

PUTNAM COUNTY COURT-HOUSE
FRANK L. PACKARD, ARCHITECT; RALPH SNYDER, ASSOCIATE; E. F. BABBITT, ENGINEER

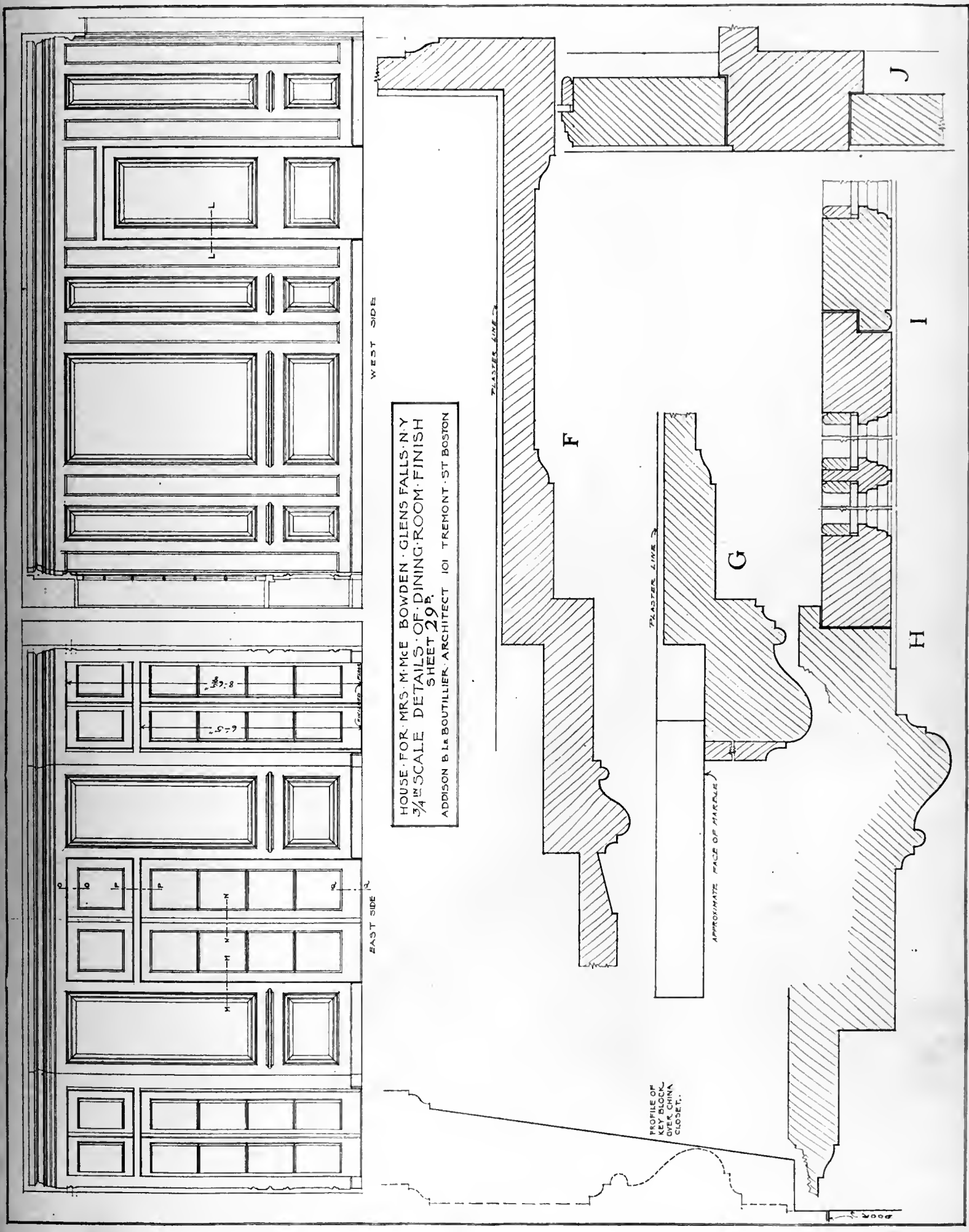
DETAIL OF INTERIOR OF COURT-ROOM
PUTNAM COUNTY COURT-HOUSE, OTTAWA, O.
FRANK L. PACKARD, ARCHITECT; RALPH SNYDER, ASSOCIATE; E. F. BABBITT, ENGINEER

COMMITTEE
No. 2535
SHEET
26

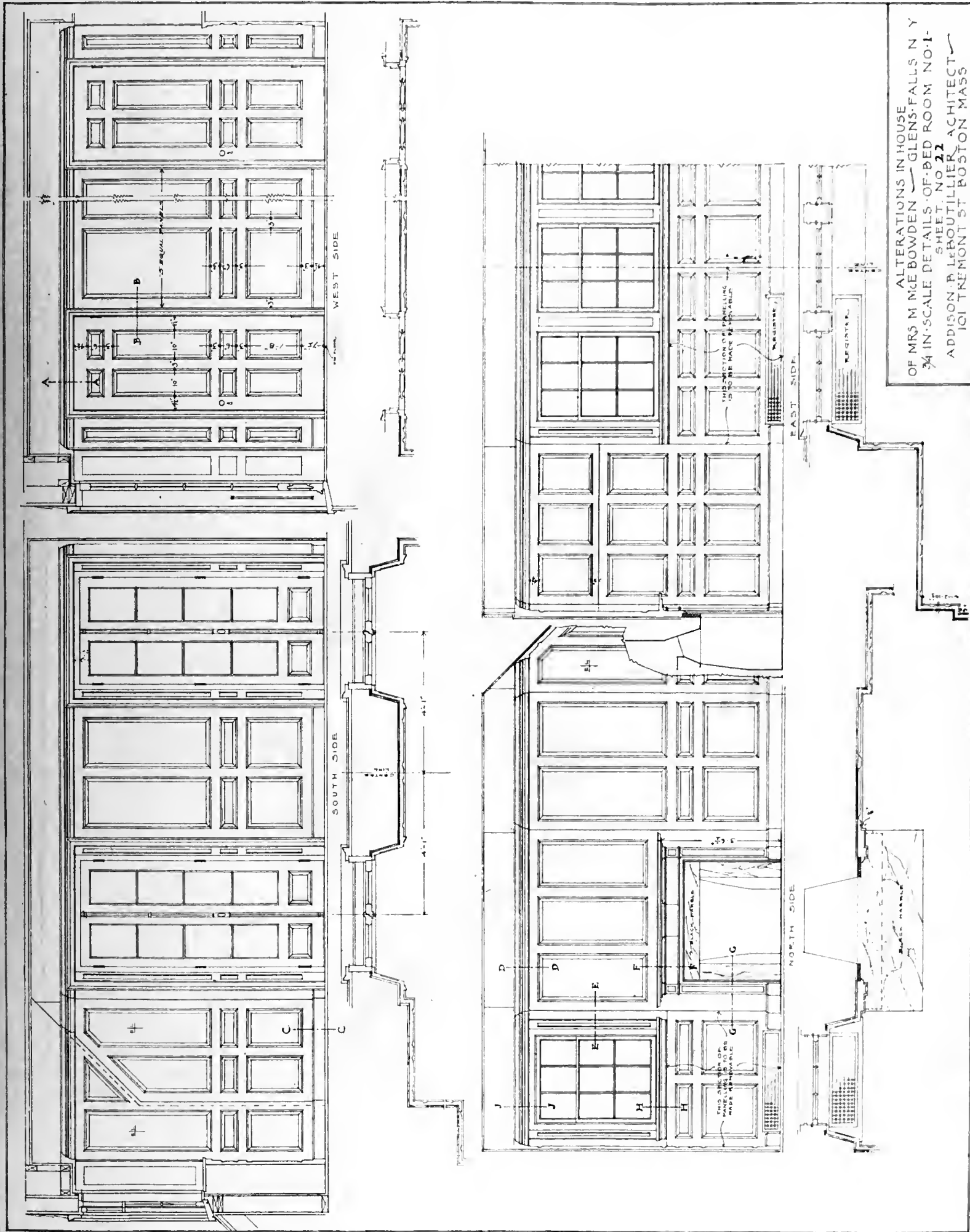


HOUSE FOR MRS. M. McE. BOWDEN, GLENS FALLS, N. Y.
3/4" SCALE. DETAILS OF DINING ROOM. FINISH.
SHEET 29A
ADDISON B. LE BOUTILLIER, ARCHITECT, 101 TREMONT ST. BOSTON

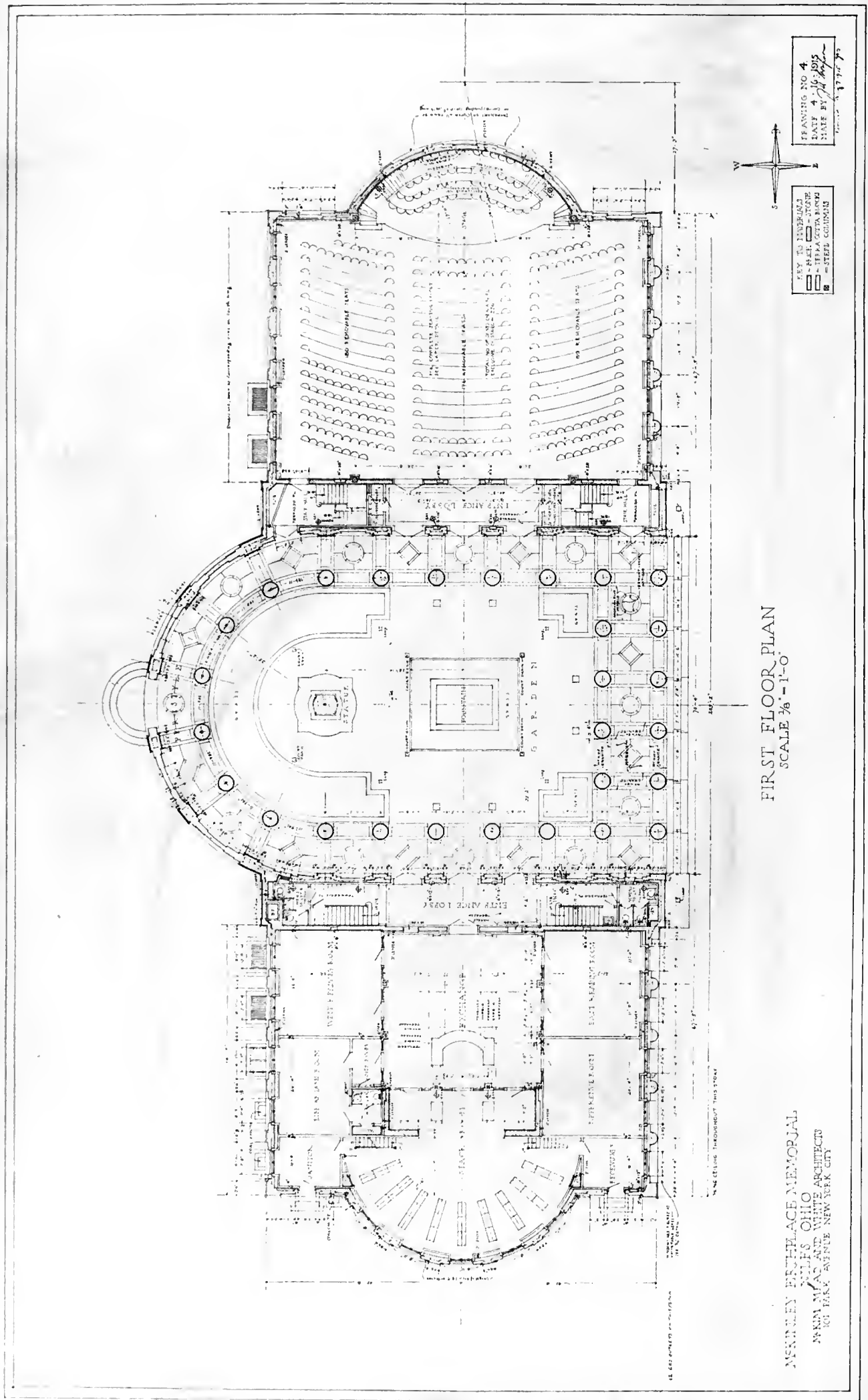
DETAILS OF DINING-ROOM FINISH
HOUSE AT GLENS FALLS, N. Y.
ADDISON B. LE BOUTILLIER, ARCHITECT



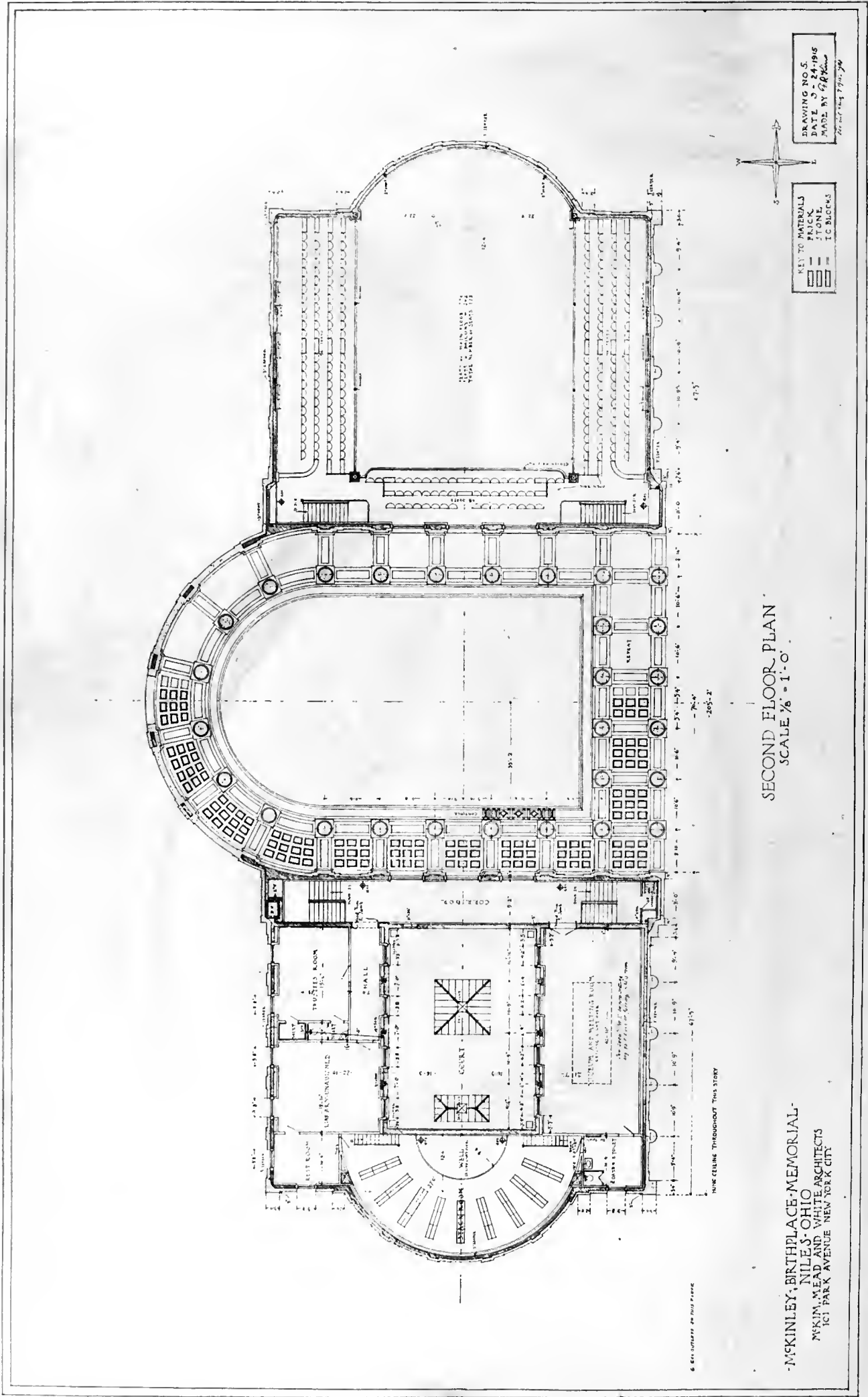
DETAILS OF DINING-ROOM FINISH
HOUSE AT GLENS FALLS, N. Y.
ADDISON B. LE BOUTILLIER, ARCHITECT



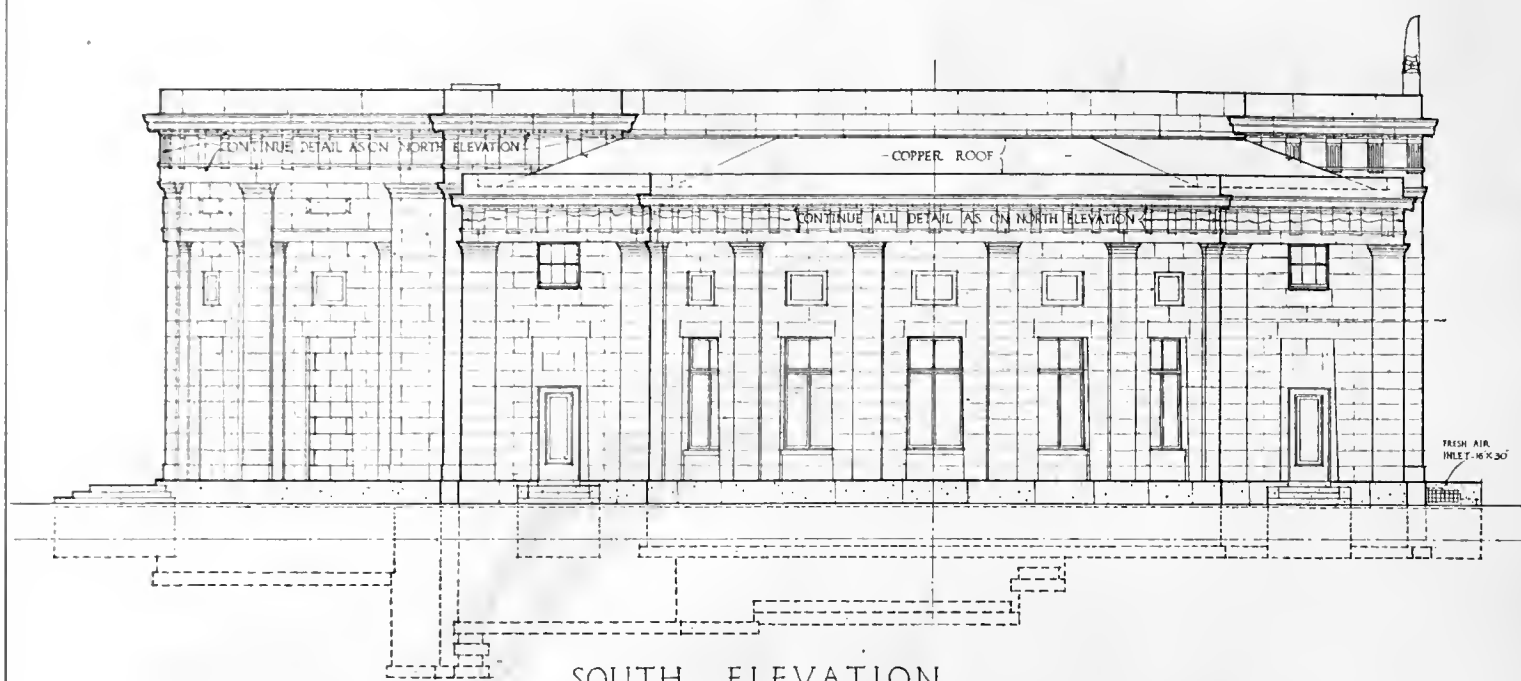
DETAILS OF BEDROOM FINISH
HOUSE AT GLENS FALLS, N. Y.
ADDISON B. LI. BOUTILLIER, ARCHITECT



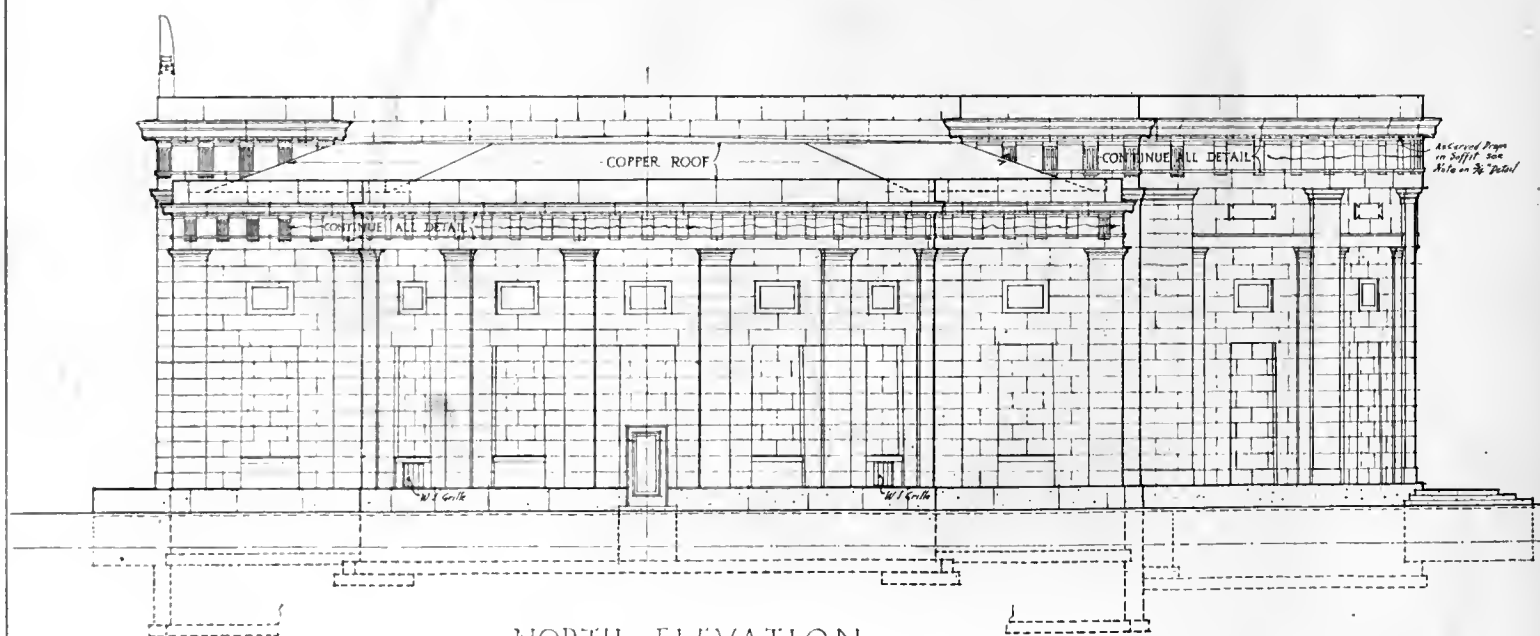
FIRST FLOOR PLAN
McKINLEY BIRTHPLACE MEMORIAL, NILES, OHIO
MCKIM, MEAD & WHITE, ARCHITECTS



SECOND FLOOR PLAN
McKINLEY BIRTHPLACE MEMORIAL, NILES, OHIO
McKIM, MEAD & WHITE, ARCHITECTS



SOUTH ELEVATION



NORTH ELEVATION

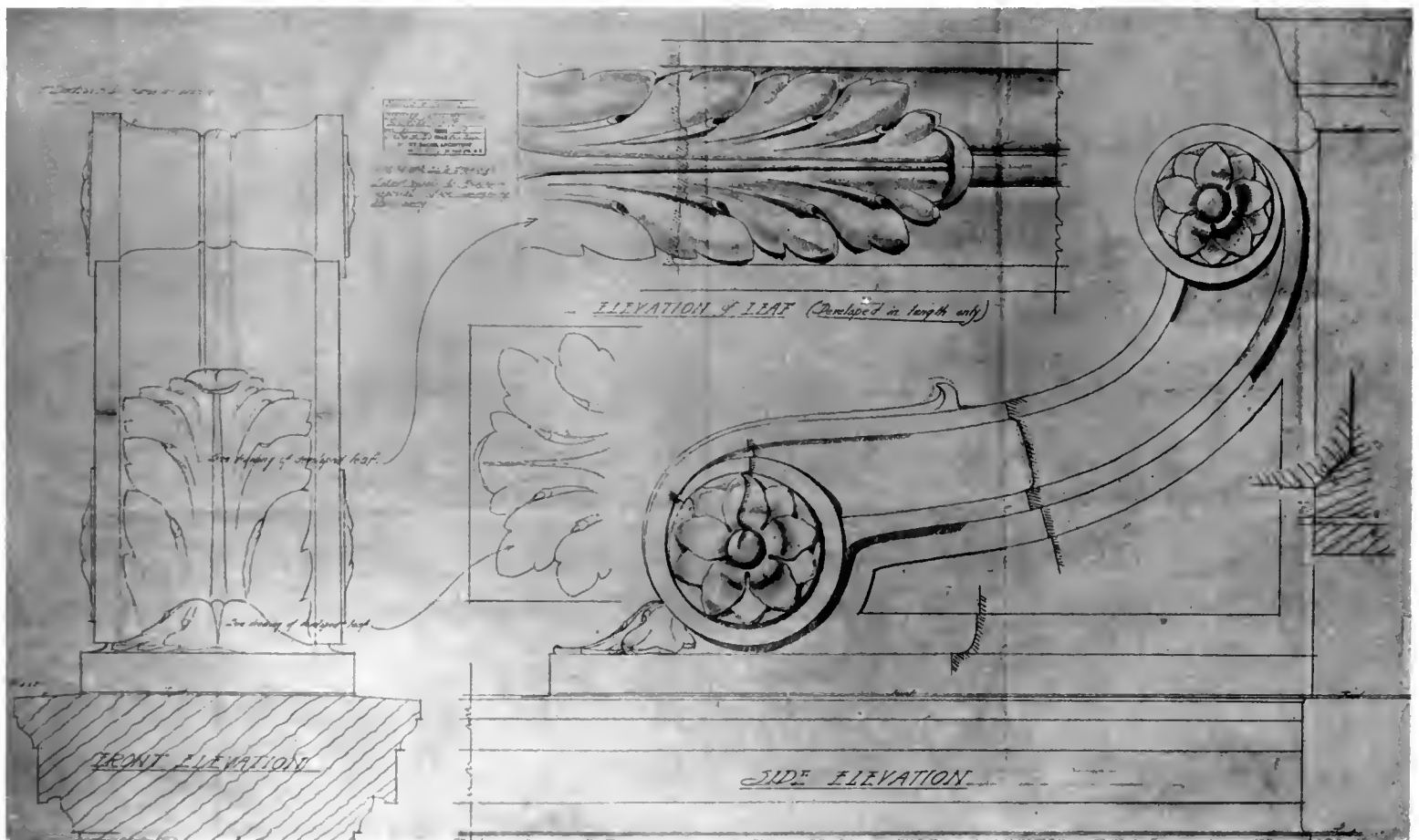
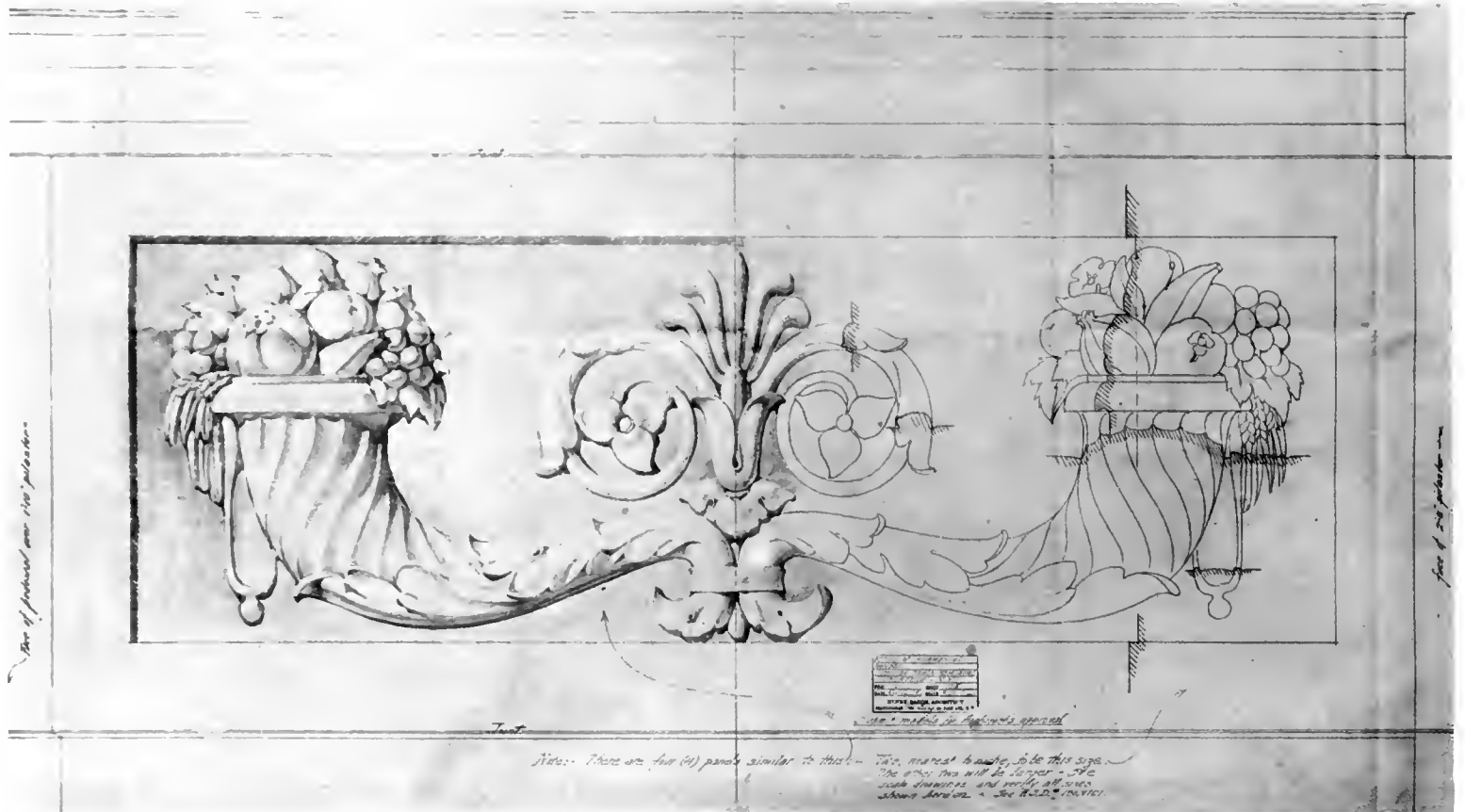
McKINLEY BIRTHPLACE MEMORIAL
NILES - OHIO
McKIM, MEAD AND WHITE - ARCHITECTS.
101 PARK AVENUE - NEW YORK CITY -

DRAWING NO-8.
DATE - 4 - 16 - 1915
MADE-BY *SA Holmes*

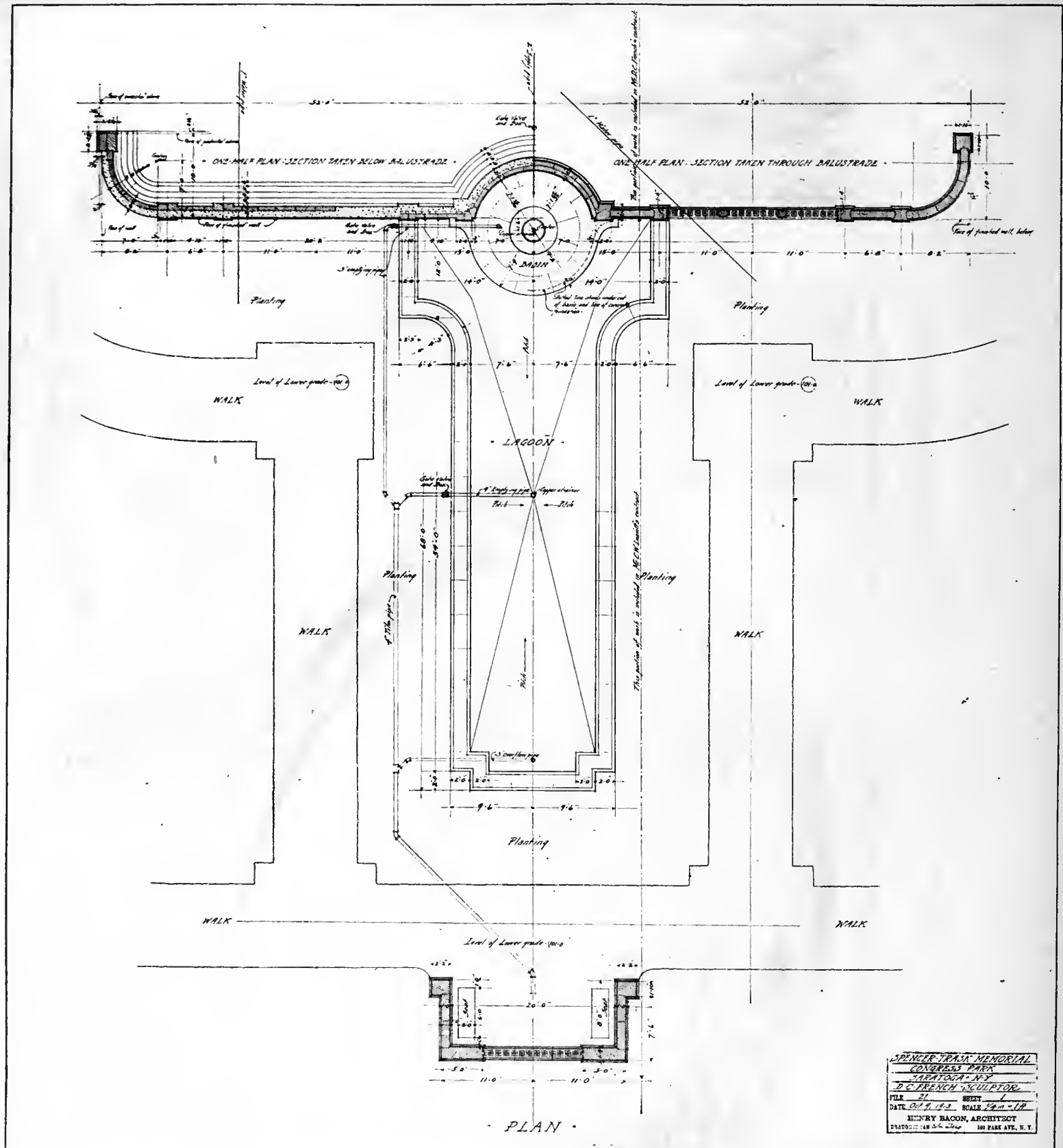


SPENCER TRASK MEMORIAL, CONGRESS PARK, SARATOGA, N. Y.

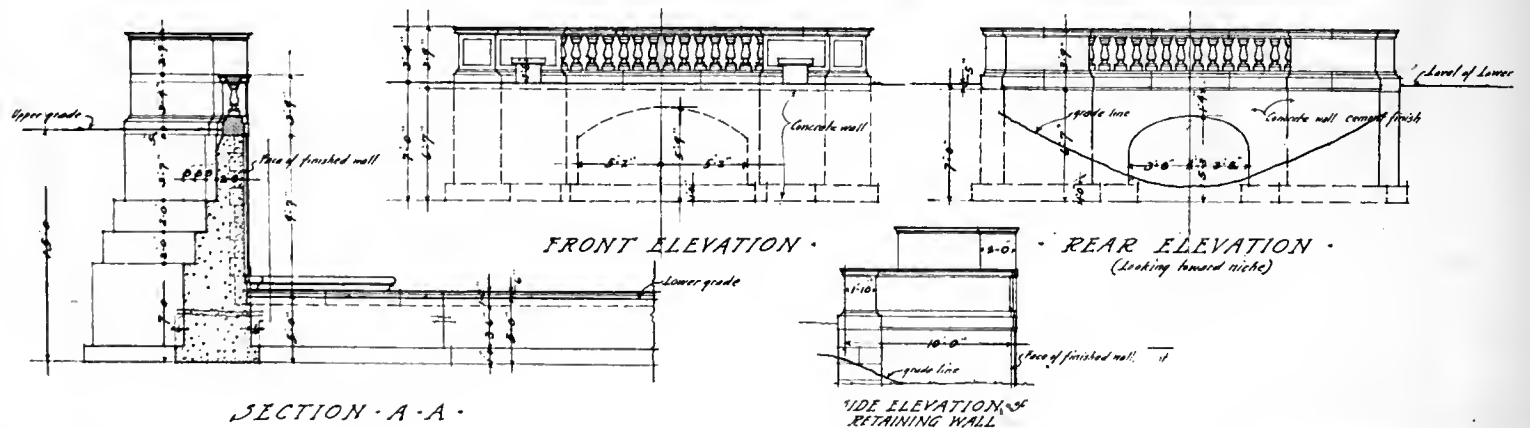
HENRY BACON, ARCHITECT; DANIEL C. FRENCH, SCULPTOR



FULL-SIZE DETAIL DRAWINGS
 SPENCER TRASK MEMORIAL, CONGRESS PARK, SARATOGA, N. Y.
 HENRY BACON, ARCHITECT; DANIEL C. FRENCH, SCULPTOR



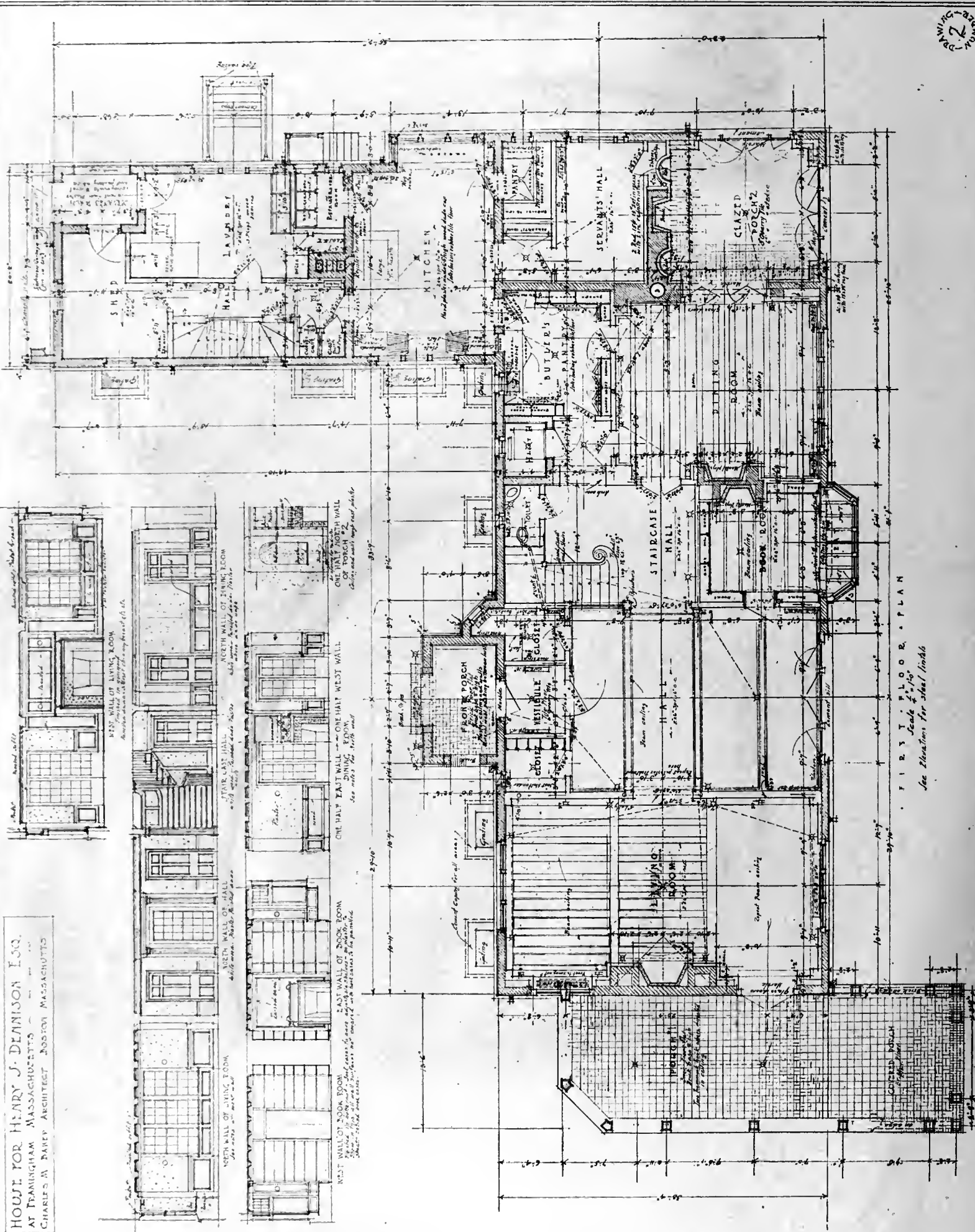
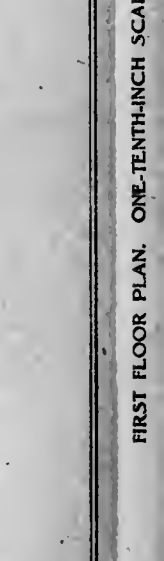
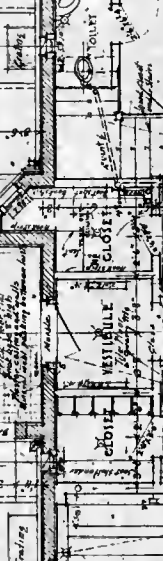
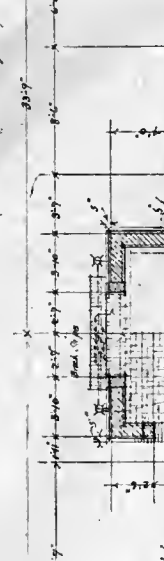
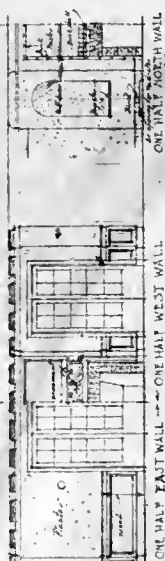
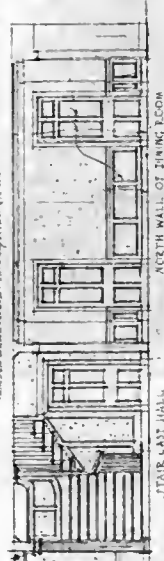
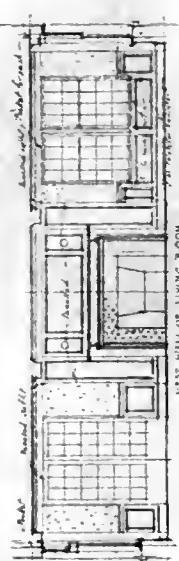
PLAN AT ONE-SIXTEENTH-INCH SCALE



SPENCER TRASK MEMORIAL, CONGRESS PARK, SARATOGA, N. Y.

HENRY BACON, ARCHITECT: DANIEL C. FRENCH, SCULPTOR

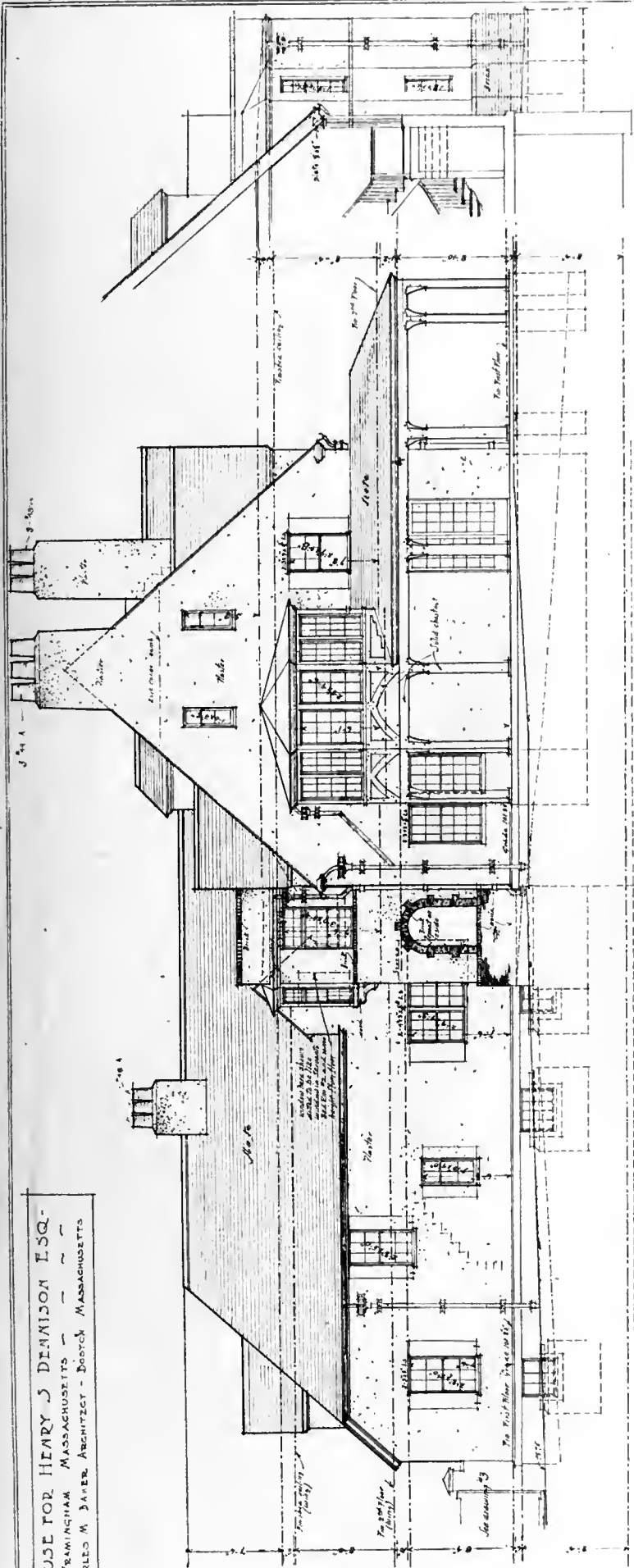
HOUSE FOR HENRY J. DENNISON ESQ.
AT FRANKINGHAM MASSACHUSETTS -
CHARLES M. BARTY ARCHITECT BOSTON MASSACHUSETTS





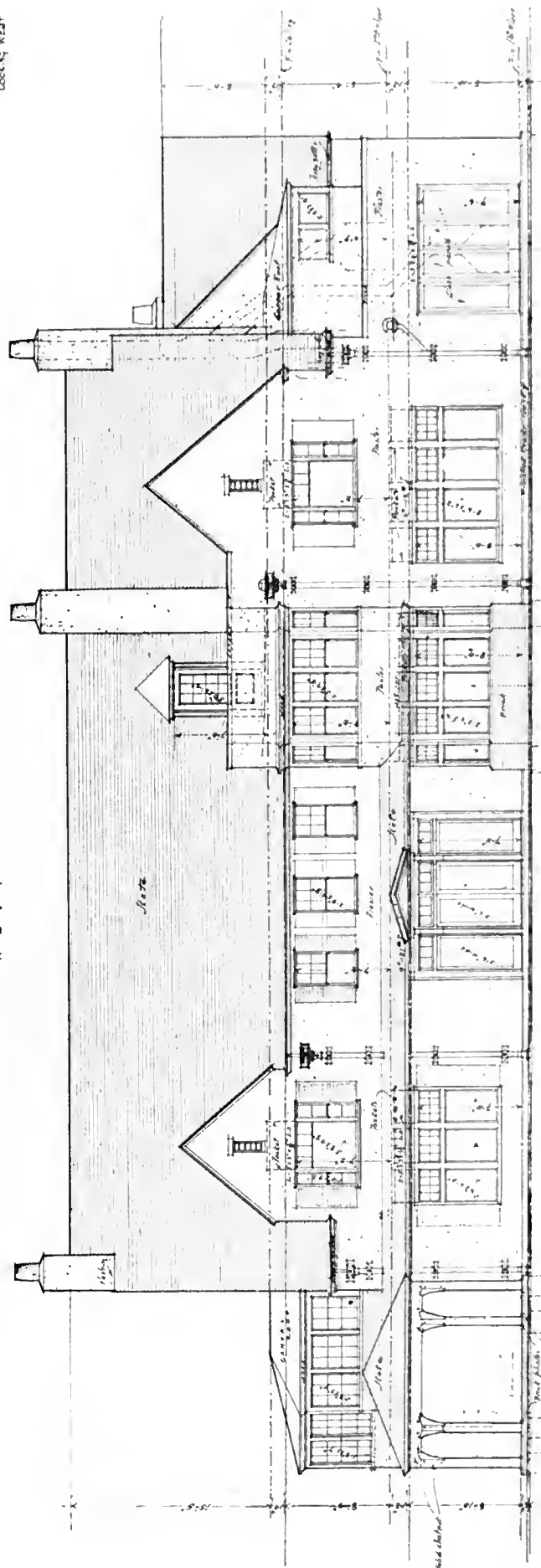
THE ARCHITECTURAL REVIEW

HOUSE FOR HENRY S DENNISON ESQ.
AT FRAMINGHAM MASSACHUSETTS
CHARLES M BAKER ARCHTCT - BOSTON MASSACHUSETTS



WEST ELEVATION

SECTION AT STAIRS
LOOKING WEST



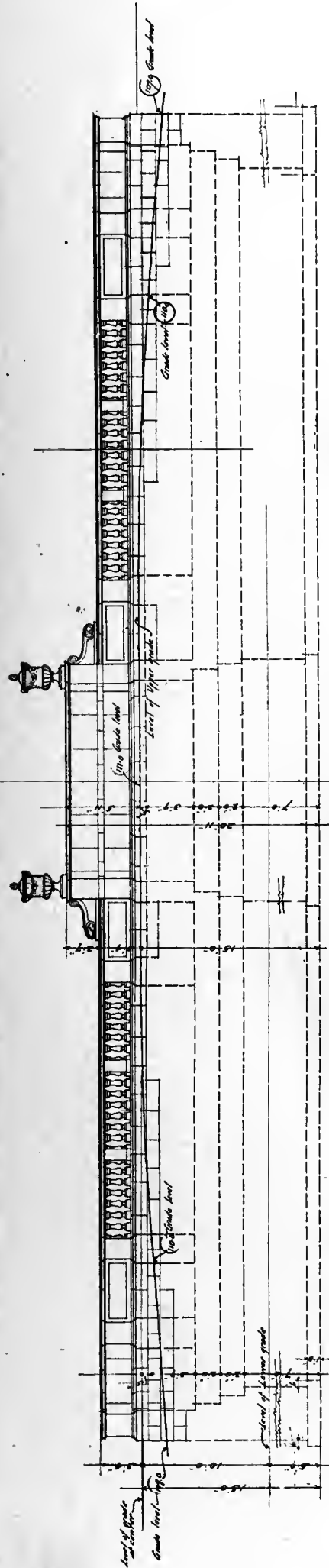
SOUTH ELEVATION

Notes: Panels marked on the lower ends of these windows
for all walls above and below where necessary - where floor level
is 1' 6" high over all openings not otherwise shown -
see list plates for all beams.

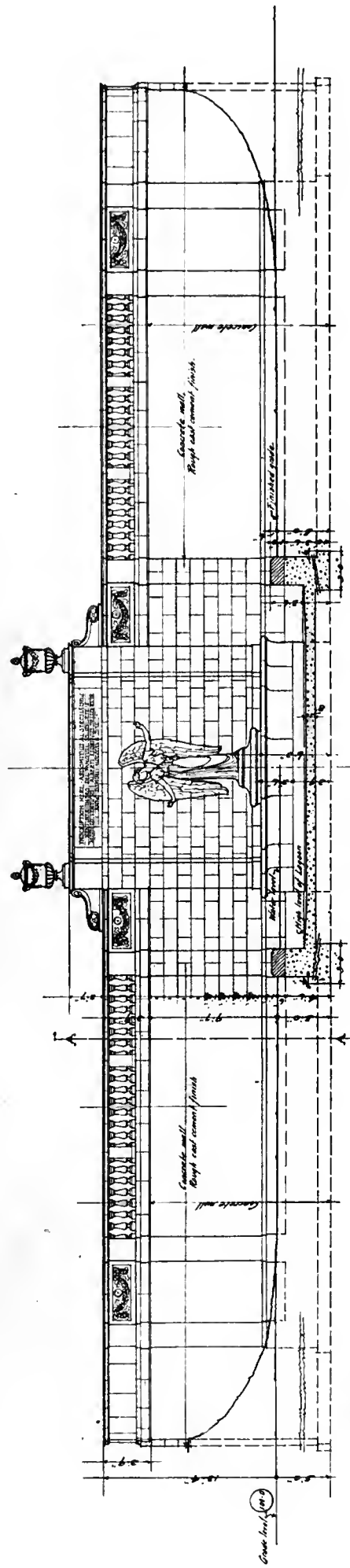
SECTION AT STAIRS
LOOKING WEST

SOUTH AND WEST ELEVATIONS. ONE-TENTH-INCH SCALE.
HOUSE FOR HENRY S. DENNISON, ESQ., FRAMINGHAM, MASS.

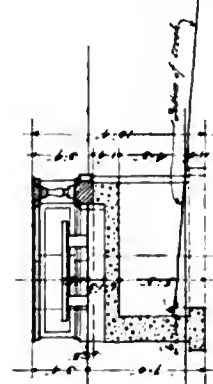
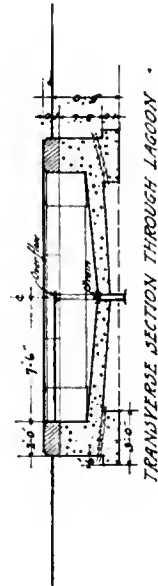
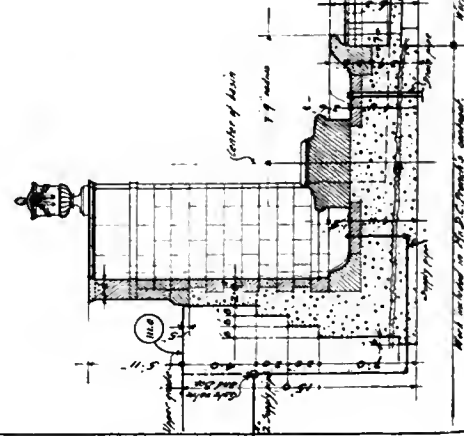
CHARLES M. BAKER, ARCHTCT.



REAR ELEVATION



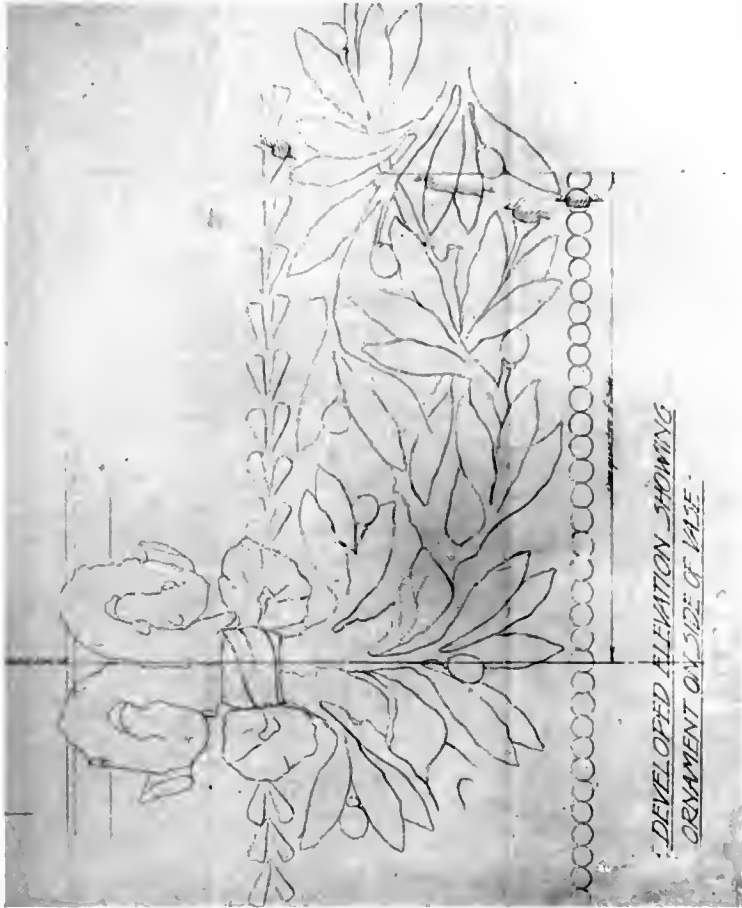
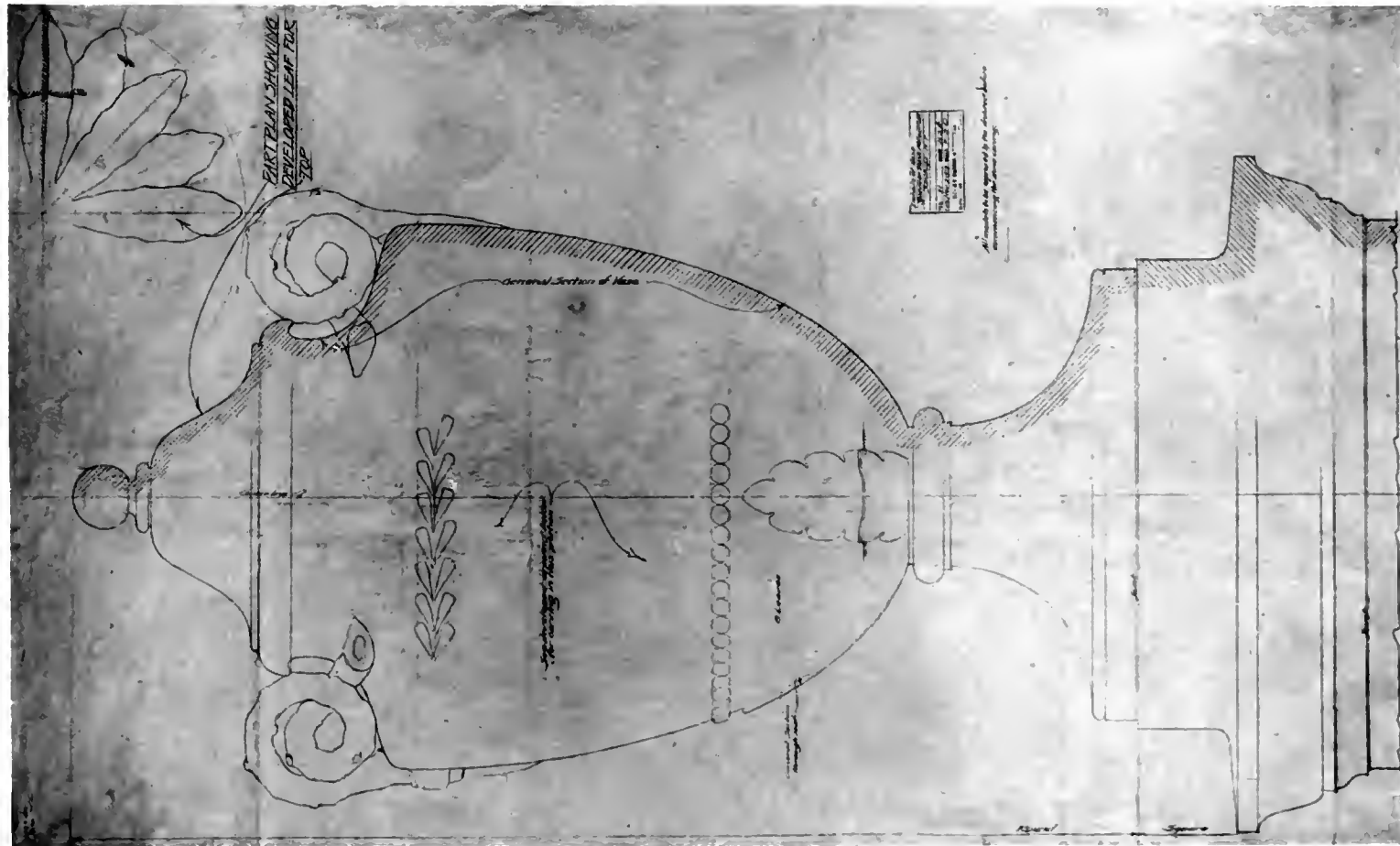
FRONT ELEVATION



SPENCER-TRASK MEMORIAL.
CONGRESS PARK
SARATOGA, N. Y.
D. C. FRENCH - SCULPTOR.
THIS IS THE FIRST OF TWO SECTIONS.
DATE Oct. 11, 1911. SCALE 1/4" = 1'-0".
HENRY BACON, ARCHT. & ENGR.
181 PARK AVE., N. Y.

LONGITUDINAL SECTION. ALONG CENTER OF LAGOON, ETC.

ELEVATIONS AND PRINCIPAL SECTIONS AT ONE-TWELFTH-INCH SCALE
SPENCER TRASK MEMORIAL, CONGRESS PARK, SARATOGA, N. Y.
HENRY BACON, ARCHT. & ENGR.; DANIEL C. FRENCH, SCULPTOR



FULL-SIZE DETAIL DRAWINGS AND PHOTOGRAPH
SPENCER TRASK MEMORIAL, CONGRESS PARK, SARATOGA, N. Y.
HENRY BACON, ARCHITECT; DANIEL C. FRENCH, SCULPTOR



SPENCER TRASK MEMORIAL, CONGRESS PARK, SARATOGA, N. Y.

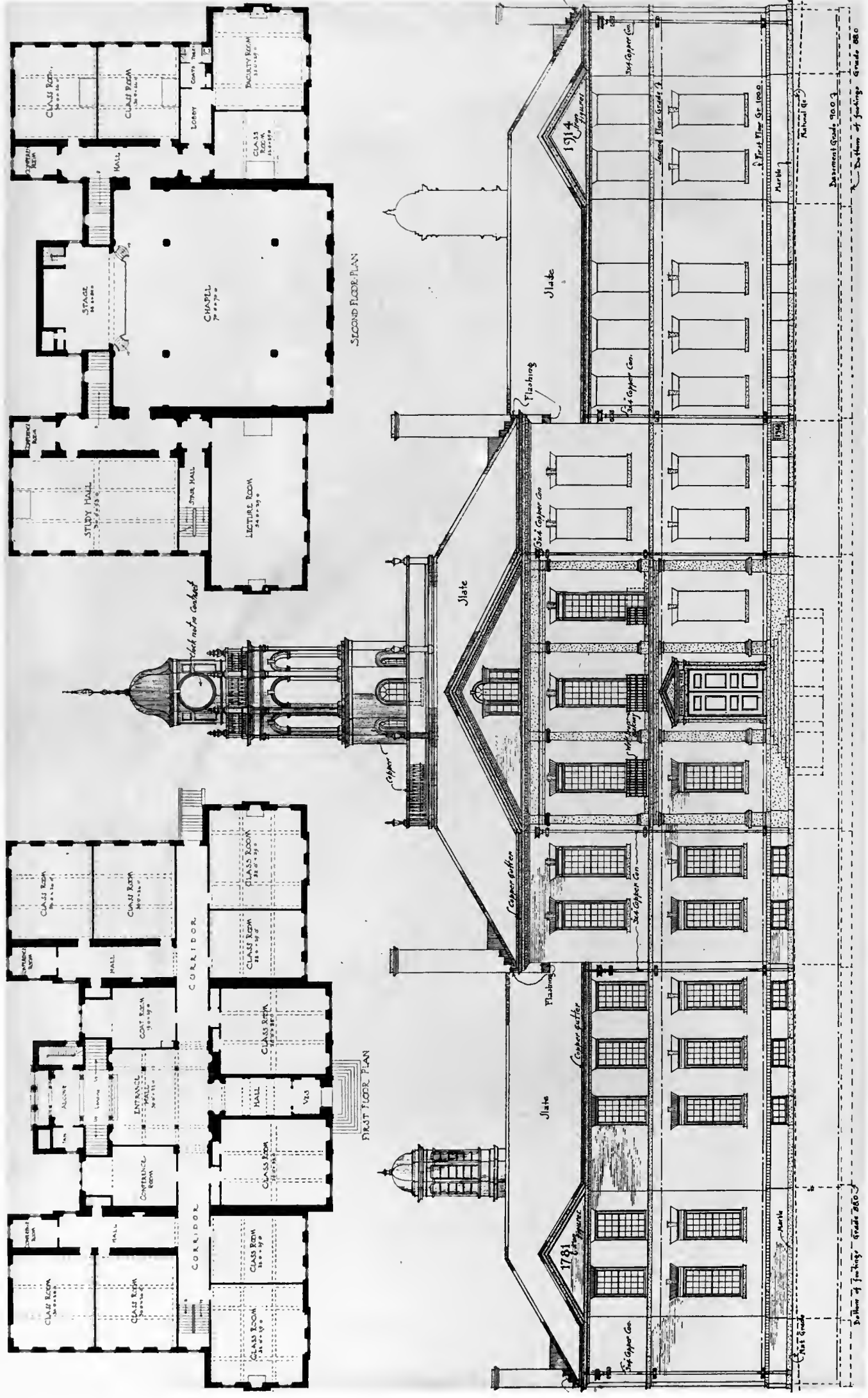
HENRY BACON, ARCHITECT; DANIEL C. FRENCH, SCULPTOR



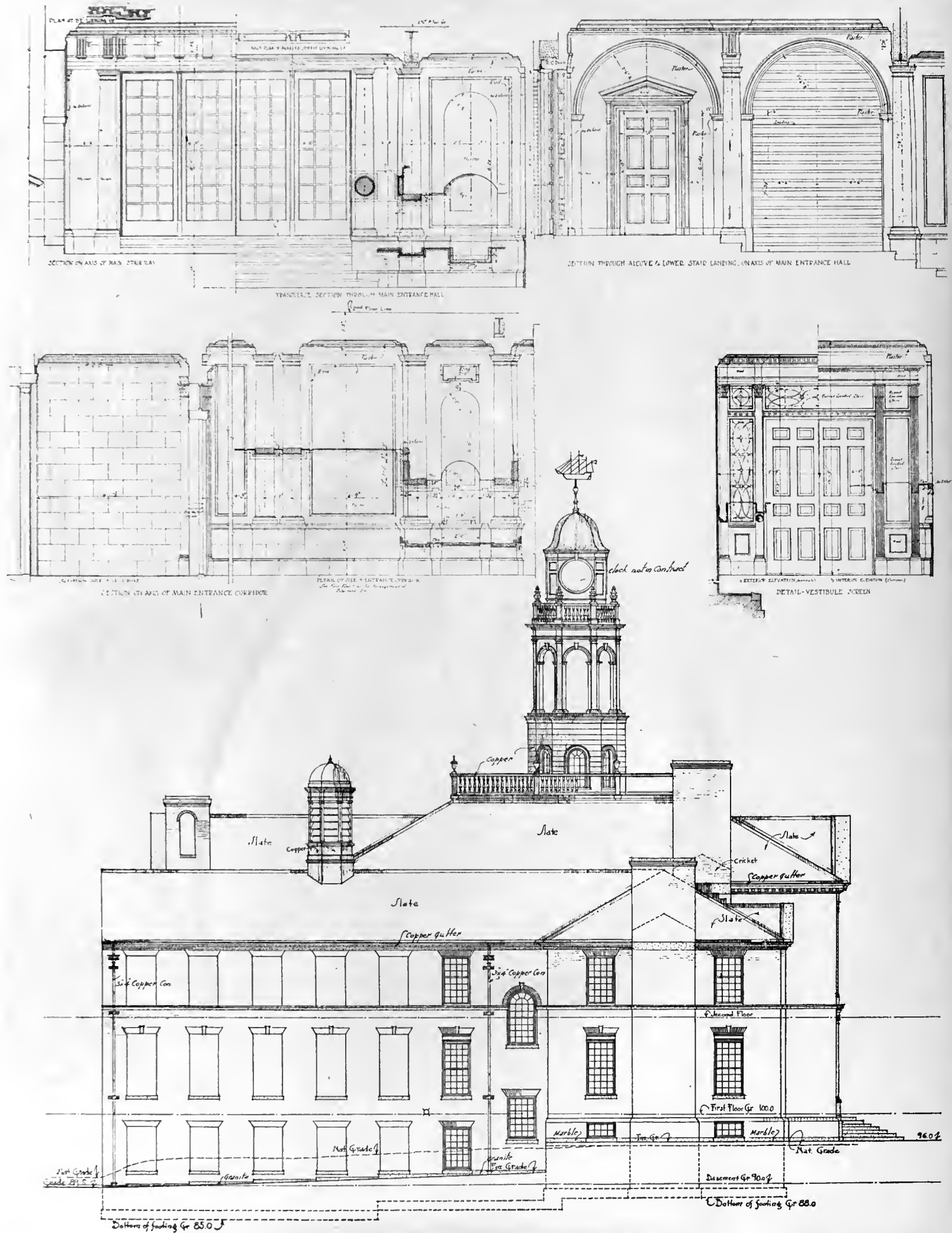
GENERAL VIEW OF FRONT



ENTRANCE HALL AND LANDING
NEW ACADEMIC BUILDING, EXETER, N. H.
CRAM & FERGUSON, ARCHITECTS



SOUTH (FRONT) ELEVATION. ONE-SIXTEENTH-INCH SCALE



WEST END ELEVATION. ONE-SIXTEENTH-INCH SCALE

ACADEMIC BUILDING, EXETER, N. H.

CRAM & FERGUSON, ARCHITECTS

ACADEMIC BUILDING
EXETER, NEW HAMPSHIRE
CRAM AND FERGUSON ARCHITECTS
BOSTON AND NEW YORK

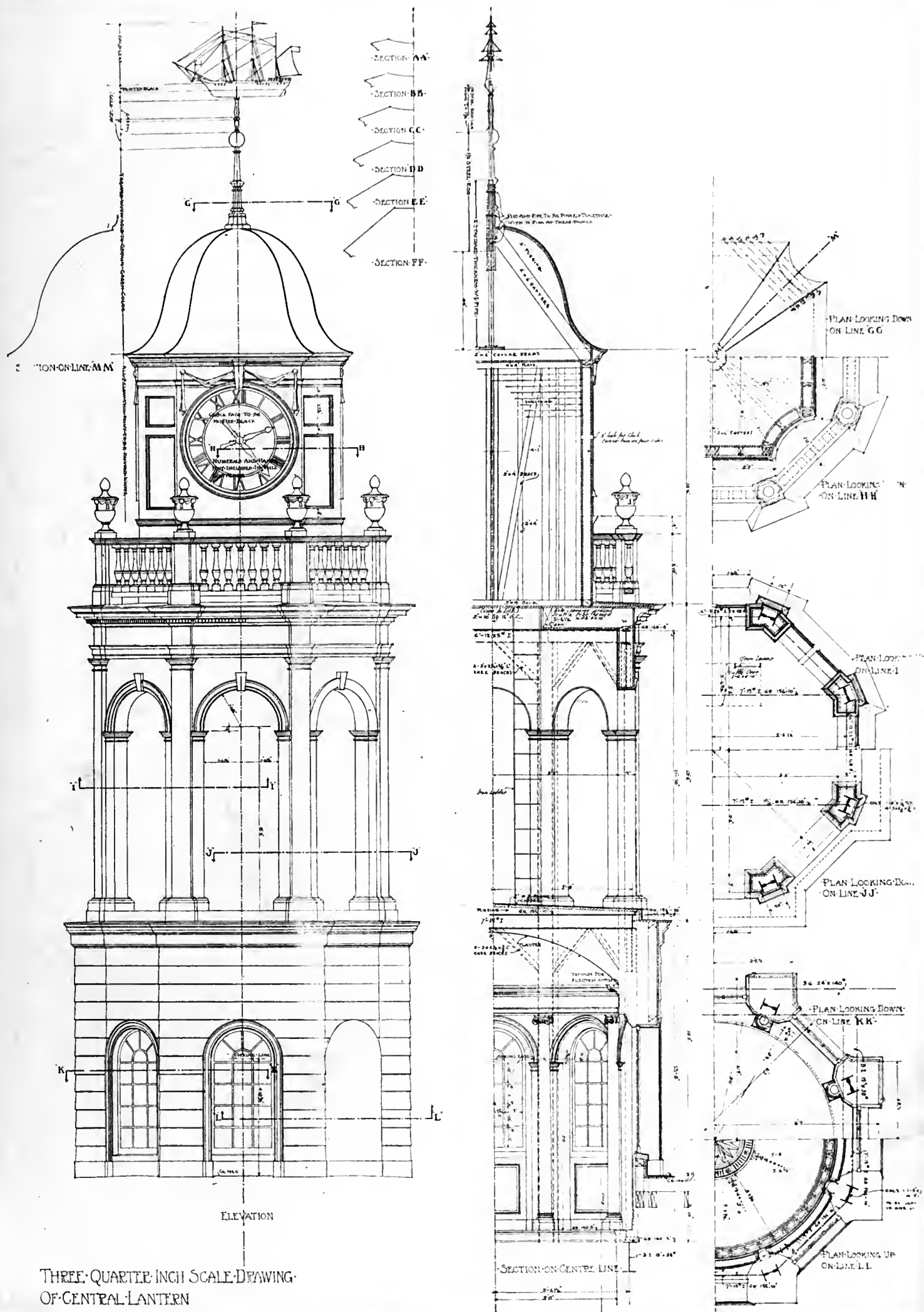
¾" SCALE DETAIL OF CENTRAL PORTION SOUTH ELEVATION.
4 BRICK COURSES BED TO BED EQUAL 10 ½"



DETAIL OF ENTRANCE GABLE. ONE-QUARTER-INCH SCALE

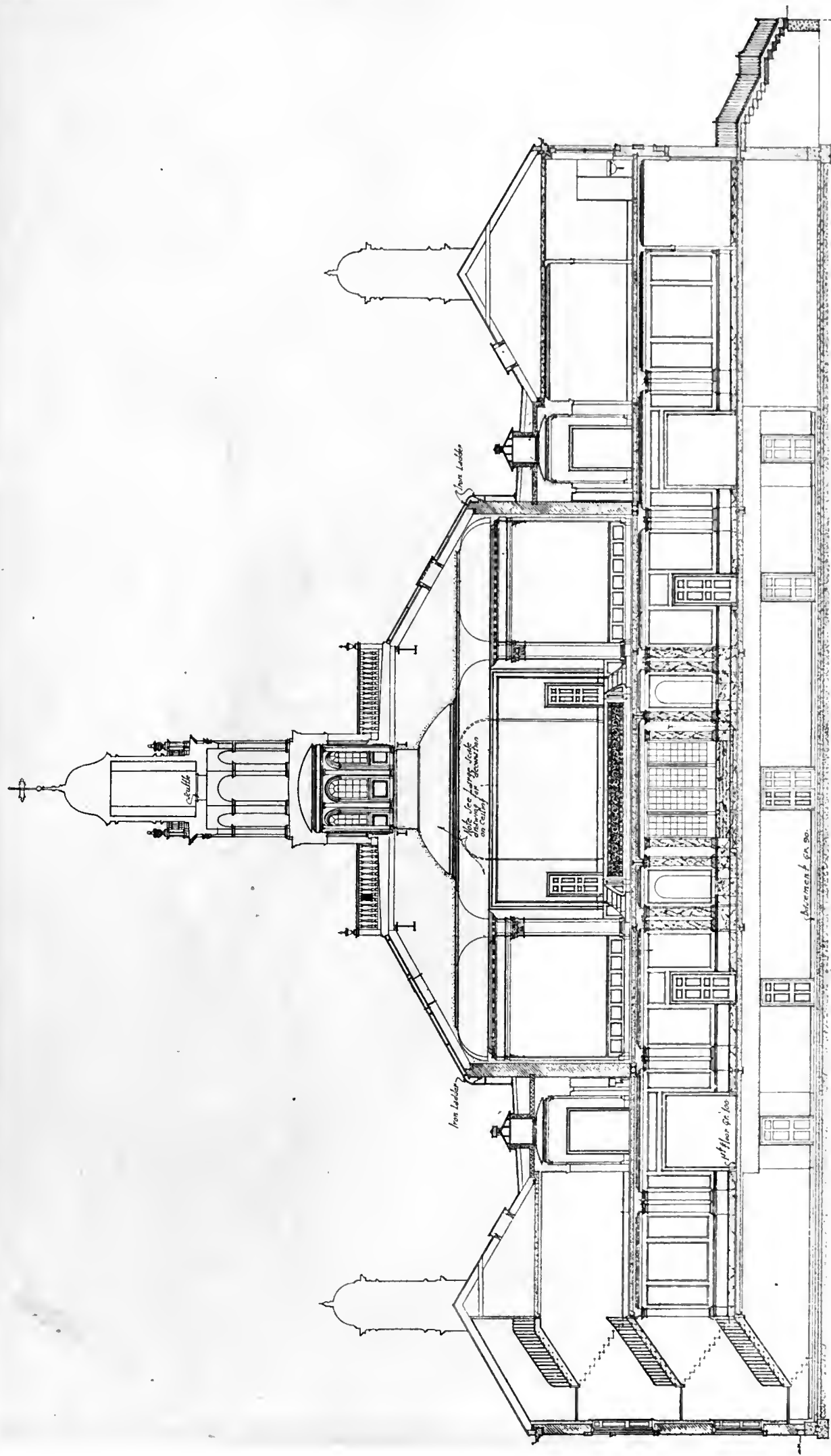
ACADEMIC BUILDING, EXETER, N. H.

CRAM & FERGUSON, ARCHITECTS

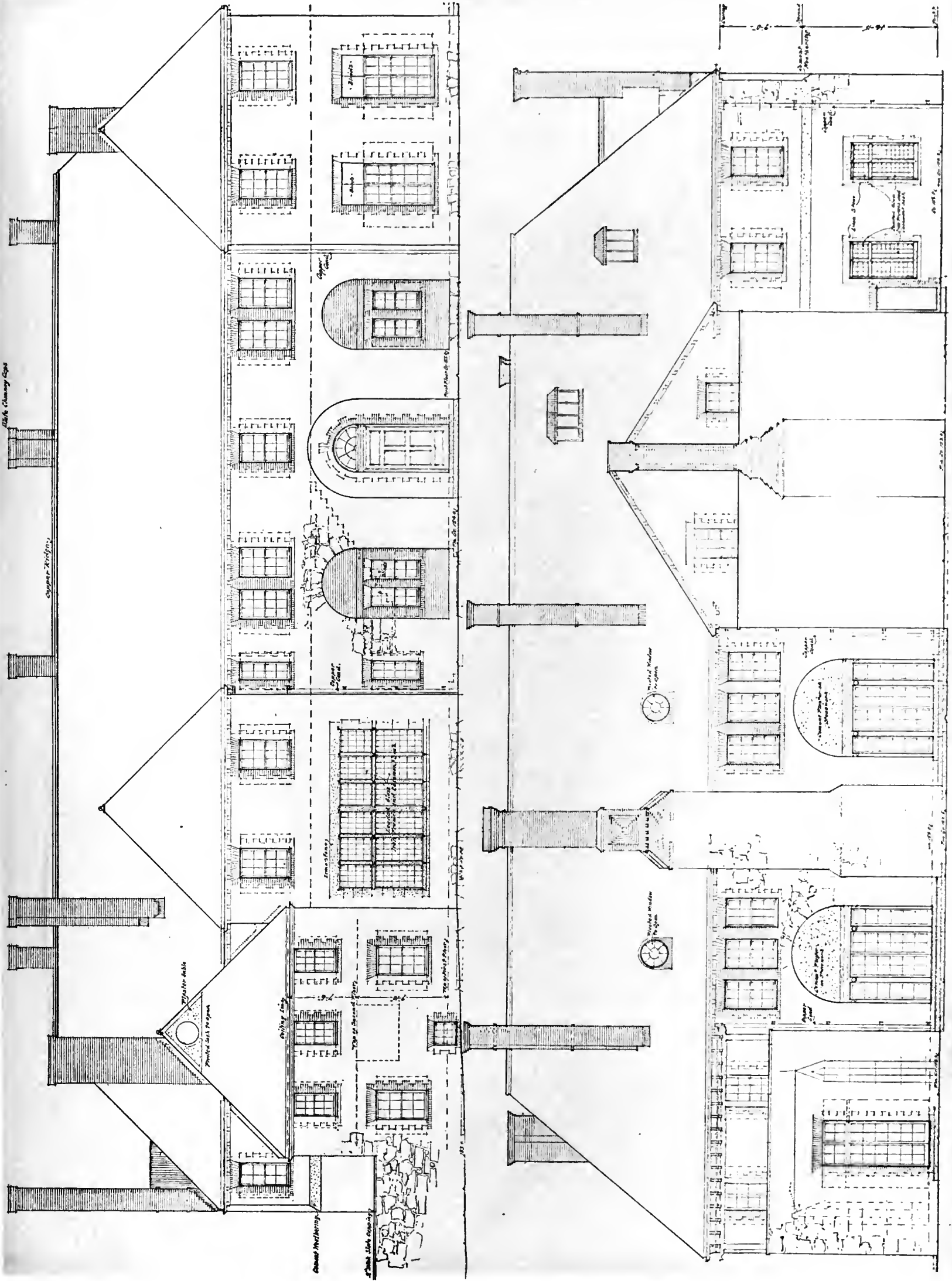


THREE-QUARTER-INCH SCALE DRAWING
OF CENTRAL LANTERN

DETAIL OF CENTRAL LANTERN
ACADEMIC BUILDING, EXETER, N. H.
CRAM & FERGUSON, ARCHITECTS



LONGITUDINAL SECTION. ONE-SINTEENTH-INCH SCALE
ACADEMIC BUILDING, EXETER, N. H.
CRAM & FERGUSON, ARCHITECTS



PRINCIPAL ELEVATIONS. ONE-TWELFTH-INCH SCALE
HOUSE FOR MRS. F. L. W. RICHARDSON, CHARLES RIVER VILLAGE, MASS.
RICHARDSON, BAROTT & RICHARDSON, ARCHITECTS



DETAIL OF ENTRANCE

NEW ACADEMIC BUILDING, EXETER, N. H.
CRAY & TERCUSON, ARCHITECTS



INTERIOR OF CHAPEL

MODERN ENGLISH COUNTRY HOUSES



ENTRANCE FRONT

TYLNEY HALL, HAMPSHIRE, ENGLAND

R. SELDEN WORNUM, ARCHITECT

MODERN ENGLISH COUNTRY HOUSES



VIEW FROM LAWN

TYLNEY HALL, HAMPSHIRE, ENGLAND
R. SELDEN WORNUM, ARCHITECT



ENTRANCE FRONT

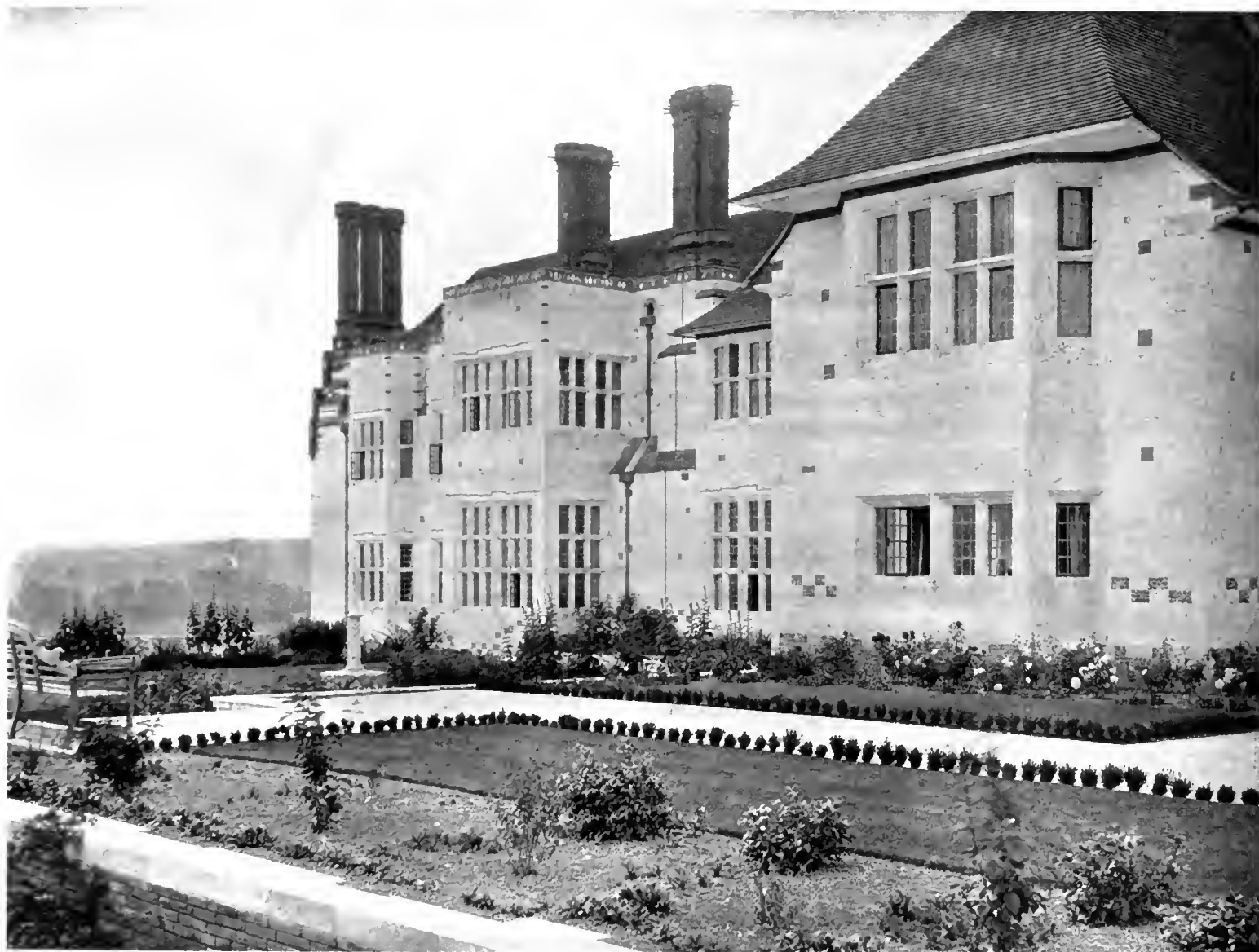
STEEP HILL, JERSLY, ENGLAND

ERNEST NEWTON, ARCHITECT





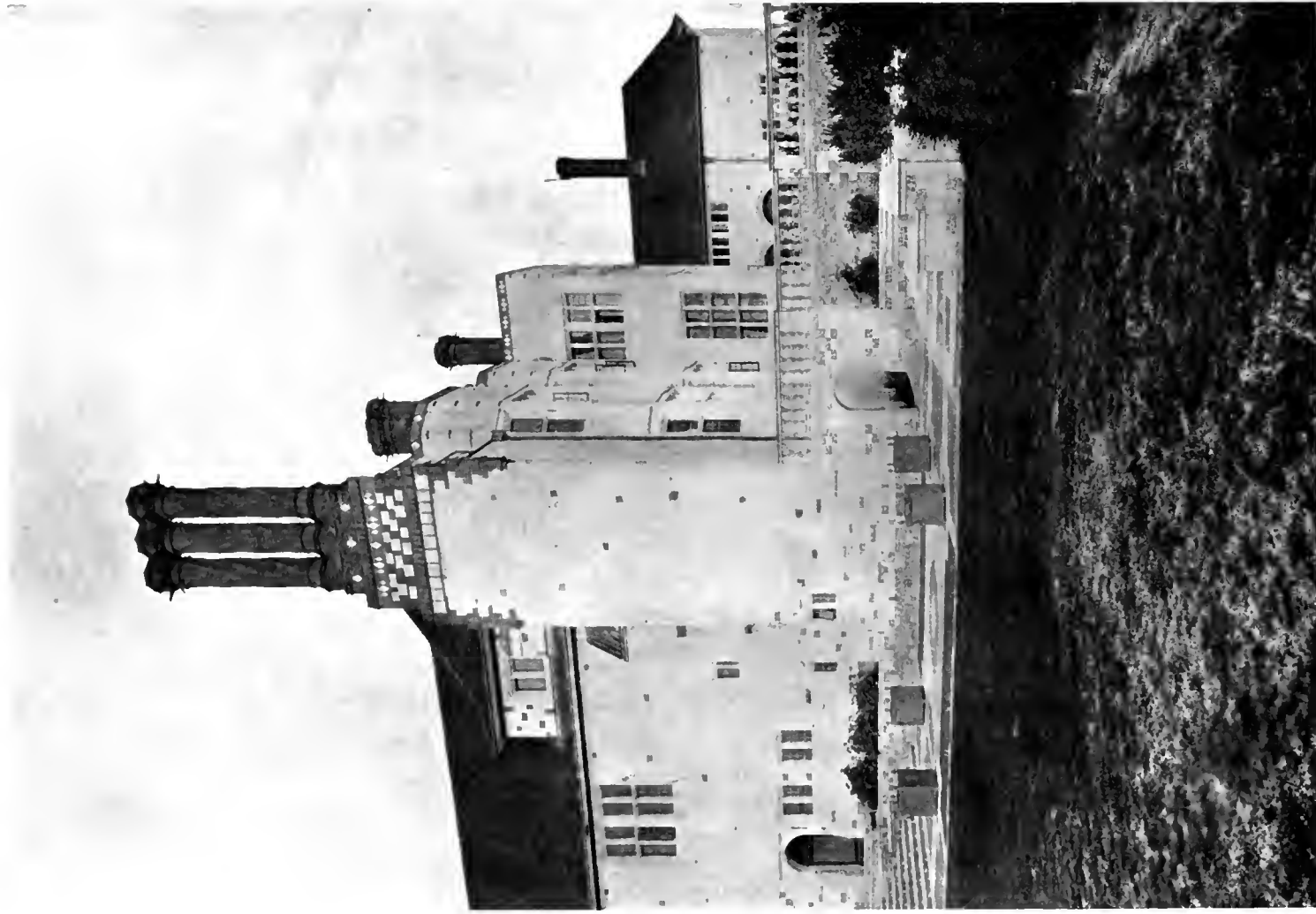
ENTRANCE FRONT



SOUTH FRONT

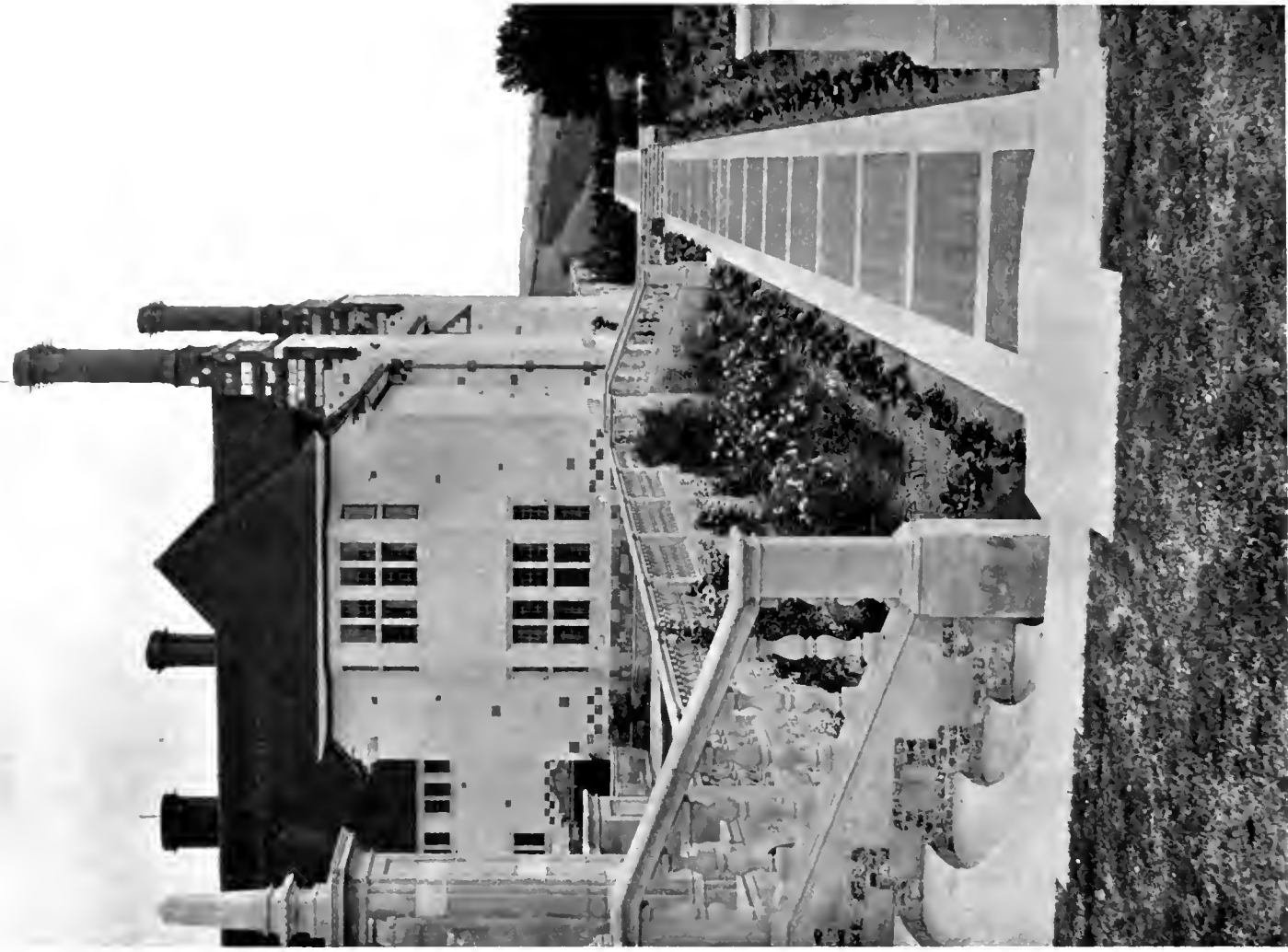
PLATE LXIV

MODERN ENGLISH COUNTRY HOUSES



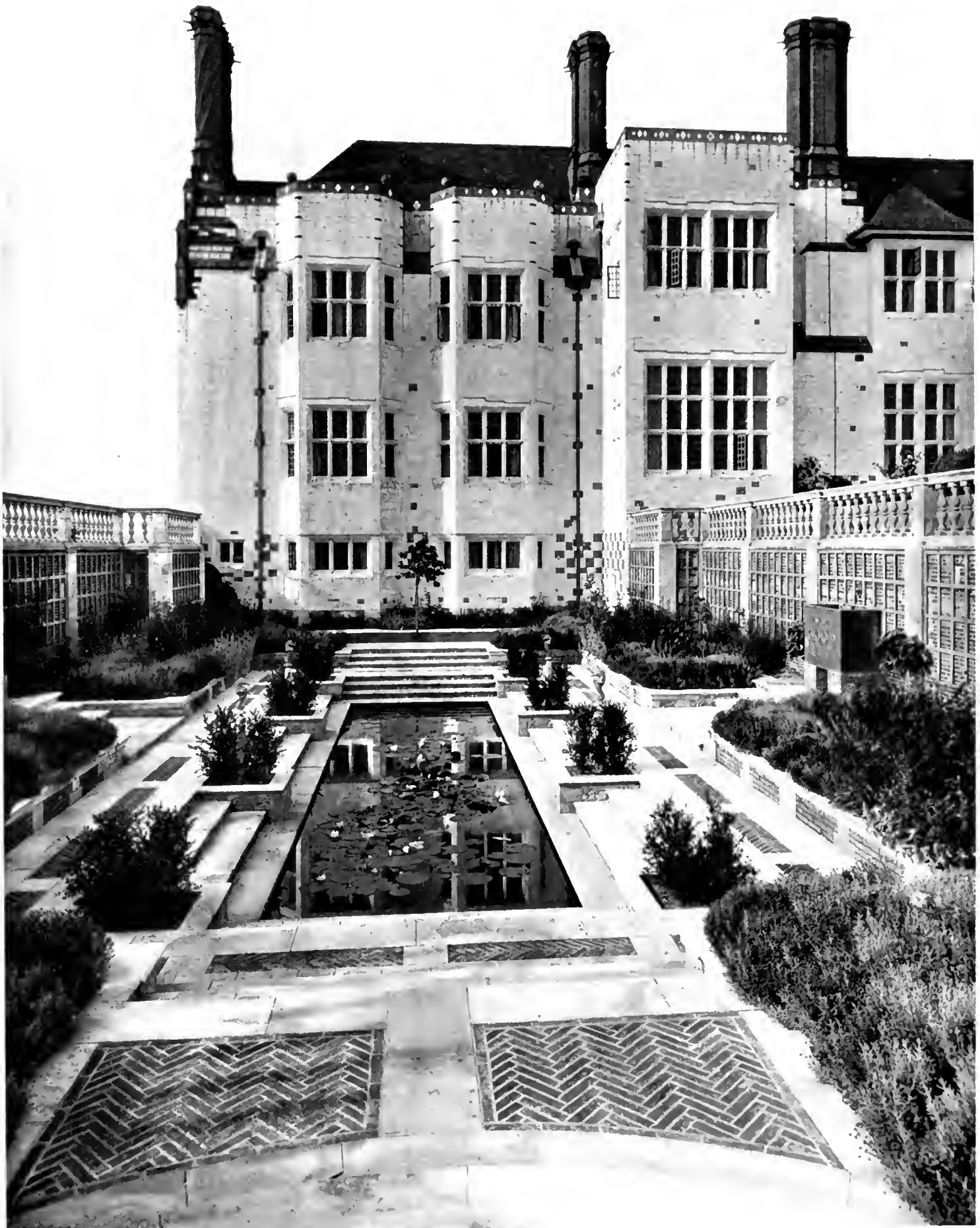
STACKS AT SOUTHWEST CORNER

MARSH COURT, HAMPSHIRE, ENGLAND
E. L. LUTYENS, ARCHITECT



WESTERN TERRACE

PLATE LXV



SUNKEN GARDEN AND LILY POOL
MARSH COURT, HAMPSHIRE, ENGLAND
E. L. LUTYENS, ARCHITECT

PLATE LXVI



THE BIG BEDROOM



ENTRANCE GALLERY

PLATE LXVII

MARSH COURT, HAMPSHIRE, ENGLAND

E. L. LUTYENS, ARCHITECT



THE STAIRS, "MARSH COURT"



THE HALL, "LITTLE THAKEHAM"



THE UPPER GALLERY
MARSH COURT, HAMPSHIRE, ENGLAND
E. L. LUTYENS, ARCHITECT



GARDEN FRONT



ENTRANCE FRONT

"DALNYREED," BARLEY, HERTS, ENGLAND

EDGAR WOOD, ARCHITECT



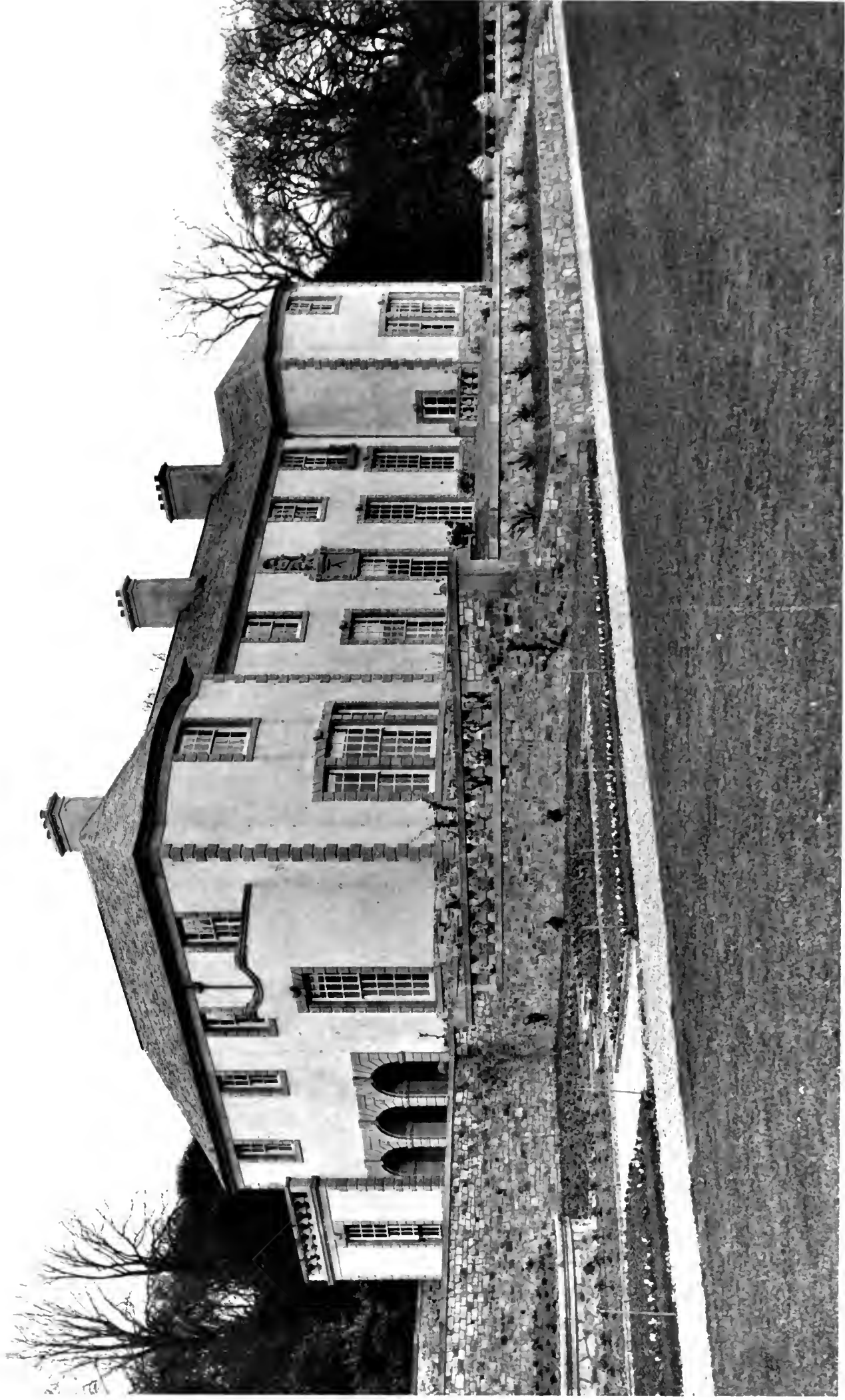
ENTRANCE FRONT



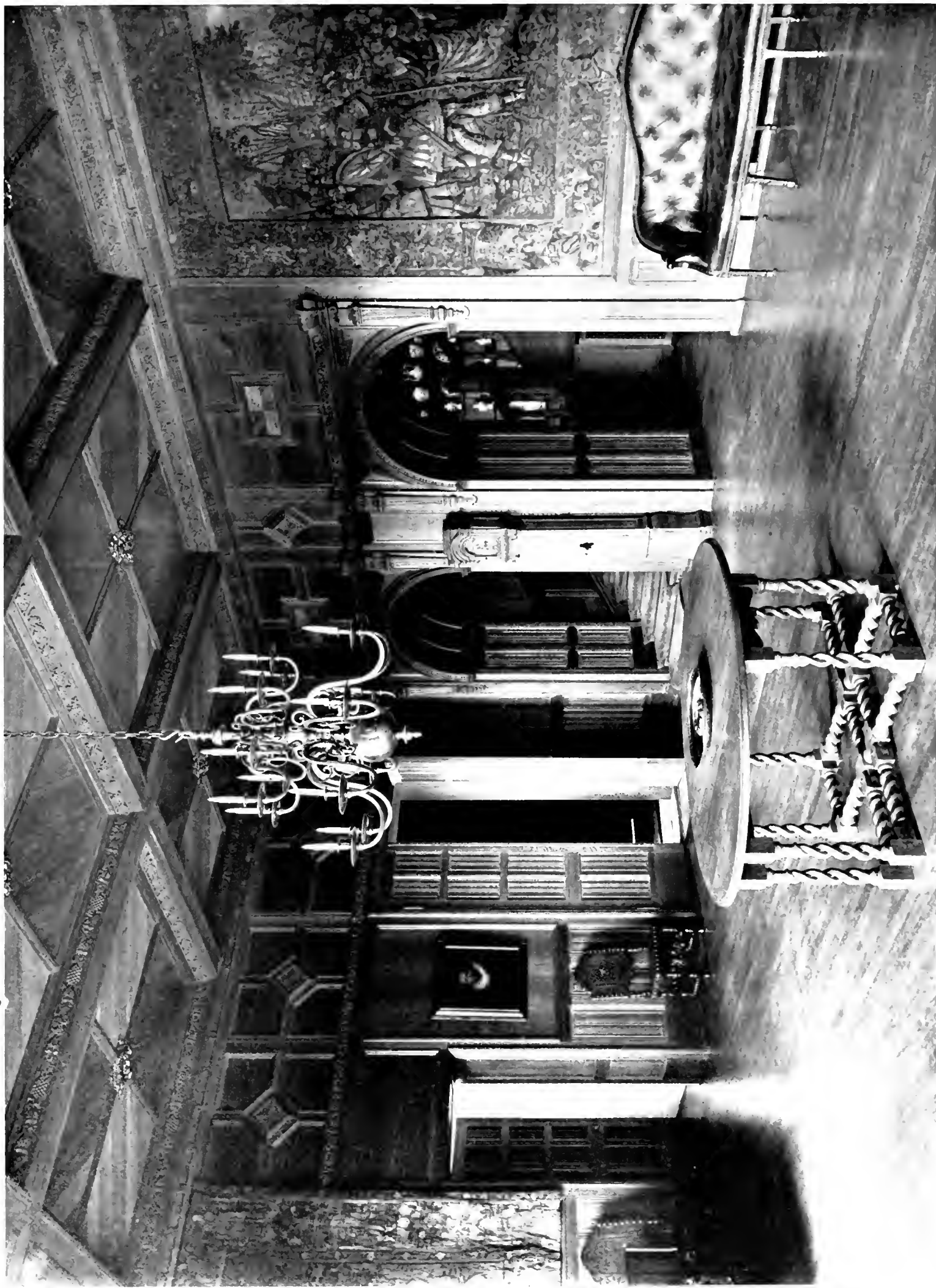
GARDEN FRONT

"ACREMEAD," CROCKHAM HILL, KENT, ENGLAND

SMITH & BREWER, ARCHITECTS



VIEW FROM SOUTHWEST
WENYSS HALL, CUPAR FIFE, SCOTLAND
SIR ROBERT FORMYR, ARCHTCT



HALL

WEMYSS HALL, CUPAR HIF, SCOTLAND

SIR ROBERT LORIMER, ARCHITECT



DETAIL OF RECEPTION ROOM

WEMYSS HALL, CUPAR FIFE, SCOTLAND

SIR ROBERT LORIMER, ARCHT. CI.

MANTEL IN DINING-ROOM

PLATE LXXIII

MODERN ENGLISH COUNTRY HOUSES



GARDEN OR TERRACE FRONT
KELLING PLACE, HOLT, NORFOLK, ENGLAND





ELEVATION ON COURTYARD



ENTRANCE FRONT ON COURTYARD
KELLING PLACE, HOLT, NORFOLK, ENGLAND
EDWARD S. PRIOR, ARCHITECT



HALL

PLATE LXXVII

KELLING PLACE, HOLT, NORFOLK, ENGLAND

EDWARD S. PRIOR, ARCHITECT



UPPER CORRIDOR OFF HALL



FIREPLACE AND HALL



STAIR HALL

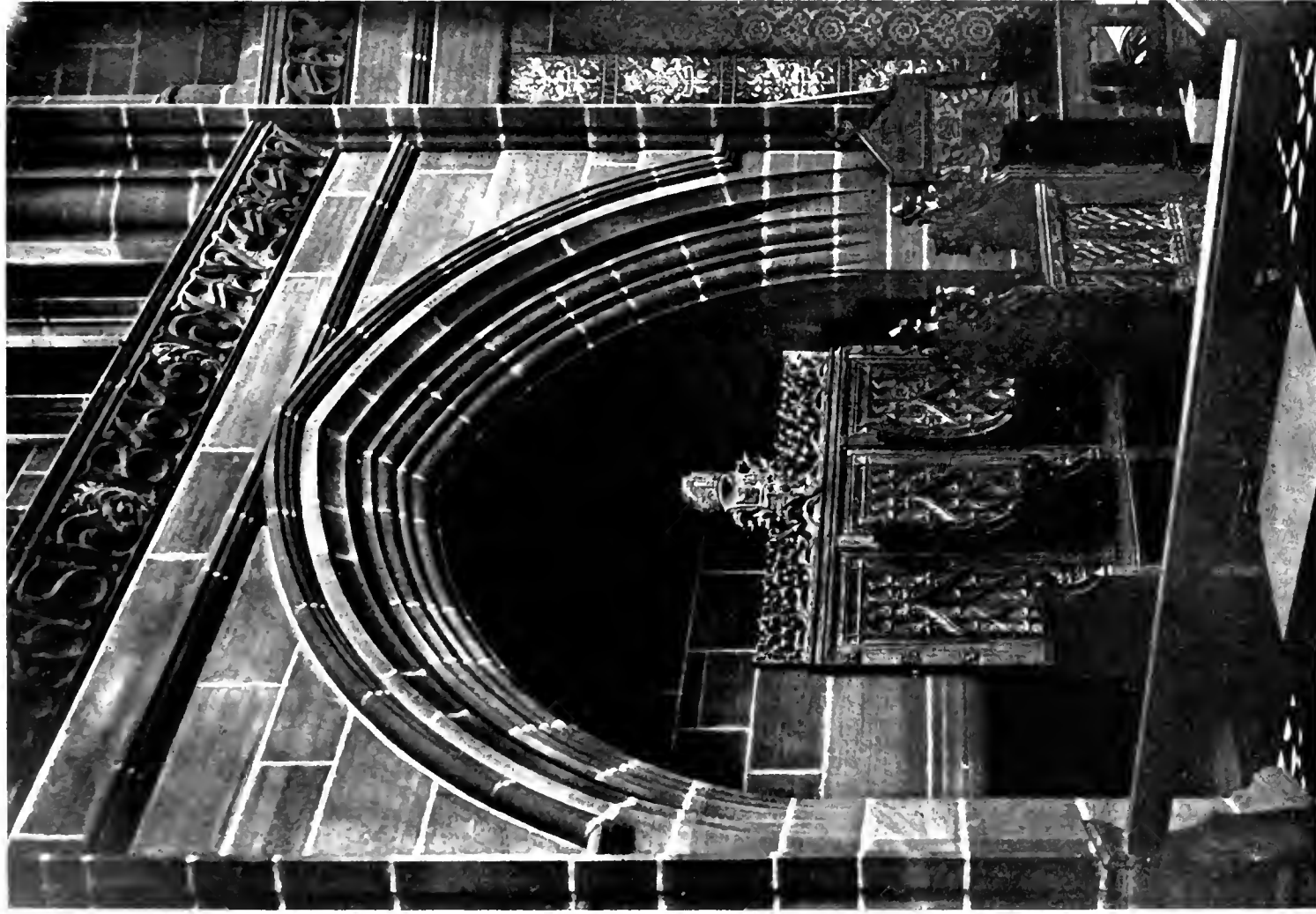


DINING-ROOM

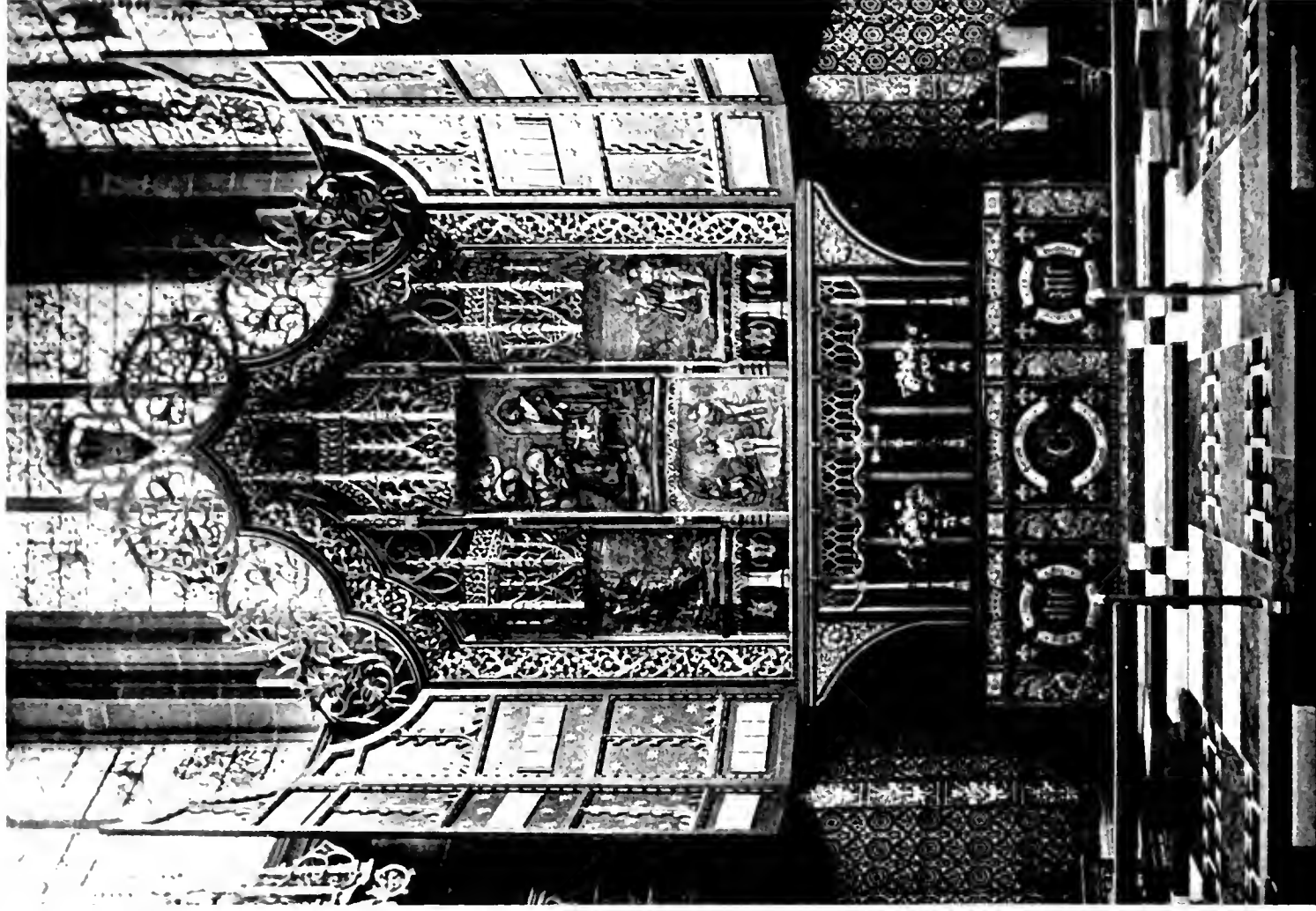
PLATE LXXIX

KELLING PLACE, HOLT, NORFOLK, ENGLAND

EDWARD S. PRIOR, ARCHITECT



THE BISHOP'S THRONE



ALTAR AND TRIPTYCH

LADY CHAPEL, LIVERPOOL CATHEDRAL, LIVERPOOL, ENGLAND

G. GILBERT SCOTT, ARCHITECT



CHURCH OF ST. ALBANS, WESTCLIFF, ENGLAND
NICHOLSON & CORLETTI, ARCHITECTS

PLATE XC



STUDIO, LOOKING TOWARD HOUSE



STUDIO, SEEN FROM HOUSE.



THE PATH TO THE HOUSE



SIDE ENTRANCE

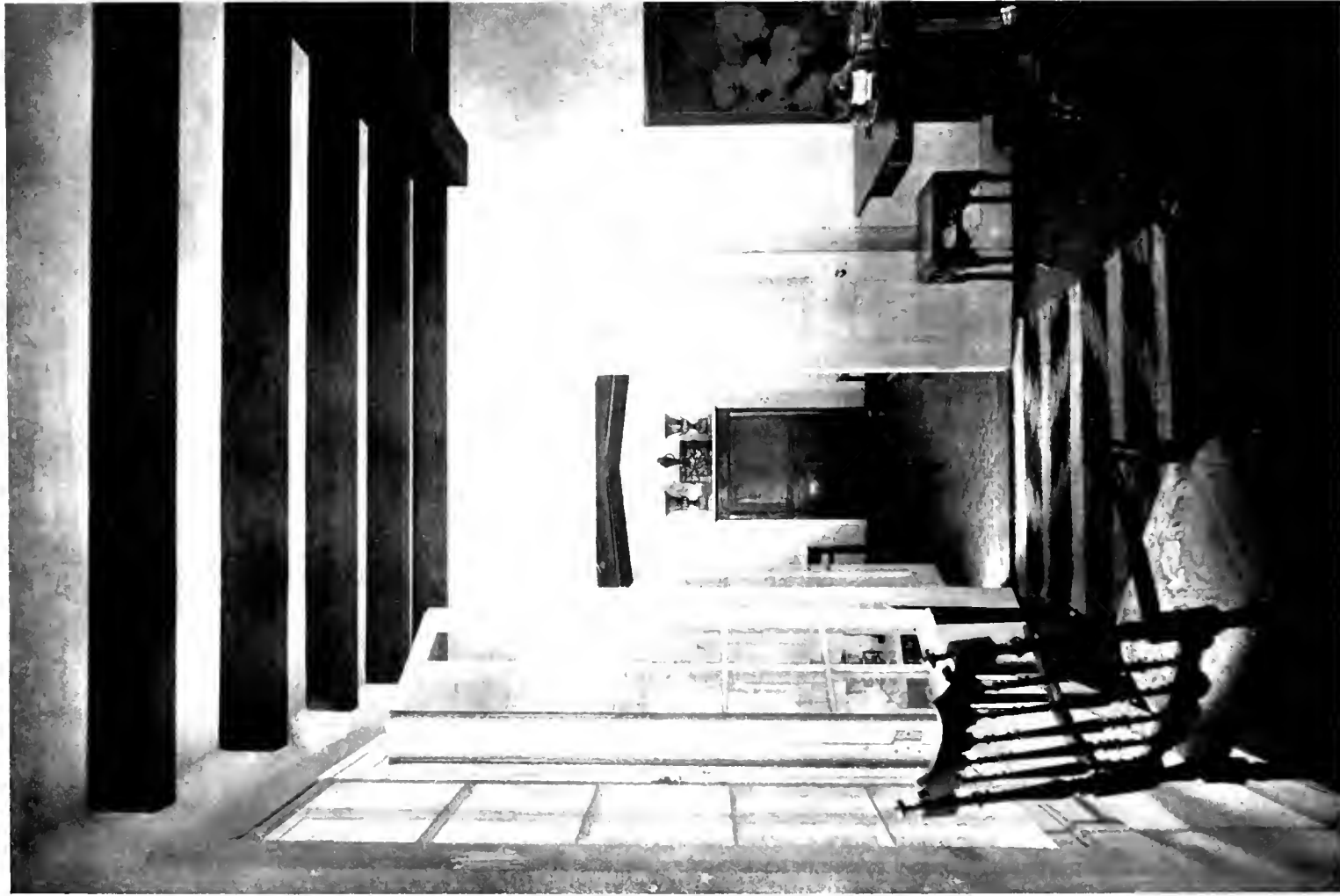


DRAWING-ROOM

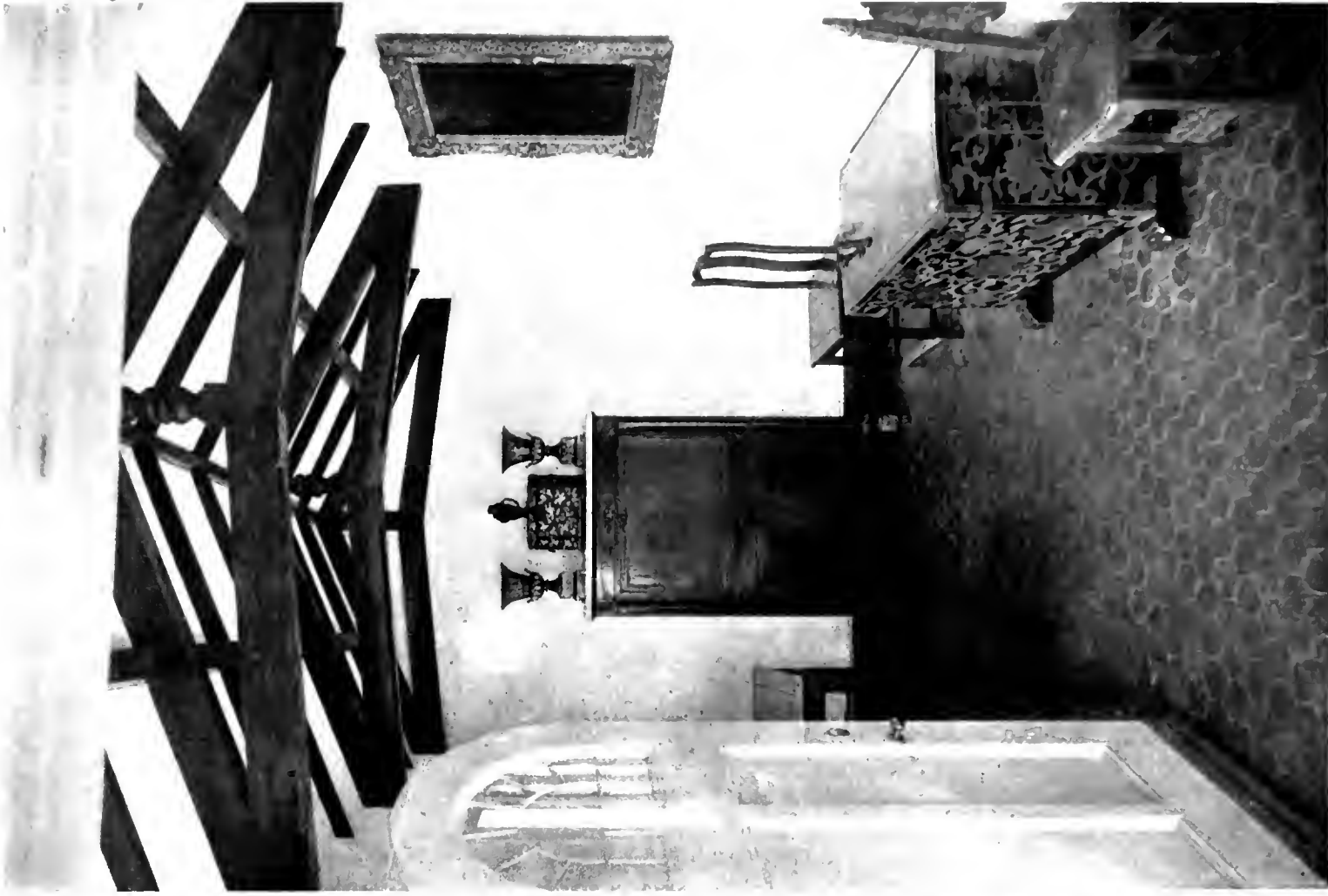


DINING-ROOM

PLATE XXXIII



DRAWING-ROOM



VESTIBULE

HOUSE OF MISS CECILIA BEAUX, EAST GLOUCESTER, MASS.

CHARLES K. CUNNING, ARCHITECT



ENTRANCE FRONT



GARDEN FRONT

PLATE XXXV



HOUSE FOR L. T. BEALE, ESQ., ST. DAVIDS, PA.

MELLOR & MEIGS, ARCHITECTS



DETAIL OF DOORWAY



INTERIOR OF LIVING-ROOM BAY



ENTRANCE FRONT



GARDEN FRONT

PLATE XXXVIII

HOUSE FOR WM. S. ELLIS, ESQ., BRYN MAWR, PA.

WILSON EYRE & McILVAINE, ARCHITECTS



DETAIL, TERRACE FRONT

HOUSE FOR WM. S. ELLIS, ESQ., BRYN MAWR, PA.
WILSON FYRE & MULLVAIN, ARCHITECTS



STAIRCASE HALL



LIVING-ROOM



HALL



LIVING-ROOM



LIBRARY

PLATE XL



FRONT VIEW



REAR VIEW

PLATE XLI



LIVING-ROOM



HALL

PLATE XLII





FRONT VIEW



SIDE VIEW

PLATE XLV



HOUSE FOR HENRY S. DENNISON, ESQ., FRAMINGHAM, MASS.

CHARLES M. BAKER, ARCHITECT



ENTRANCE FRONT



HALL

PLATE XLVI



ENTRANCE FRONT



TERRACE AND MUSIC ROOM FRONT

PLATE XLVII



HOUSE FOR MRS. F. L. W. RICHARDSON, CHARLES RIVER VILLAGE, MASS.

RICHARDSON, BAROTT & RICHARDSON, ARCHITECTS



TERRACE SIDE



GARDEN END

PLATE XLVIII



GARDEN

PLATE XLIX



OVAL PARLOR



THE RED ROOM

PLATE L



DINING-ROOM



HALL

PLATE LI



ENTRANCE DOOR, THE HALL

HOUSE FOR MRS. F. L. W. RICHARDSON, CHARLES RIVER VILLAGE, MASS.

RICHARDSON, BAROTT & RICHARDSON, ARCHITECTS



THE HALL STAIRCASE



FIREPLACE END, MUSIC-ROOM



ENTRANCE END, MUSIC-ROOM

PLATE LIII



EXTERIOR



INTERIOR



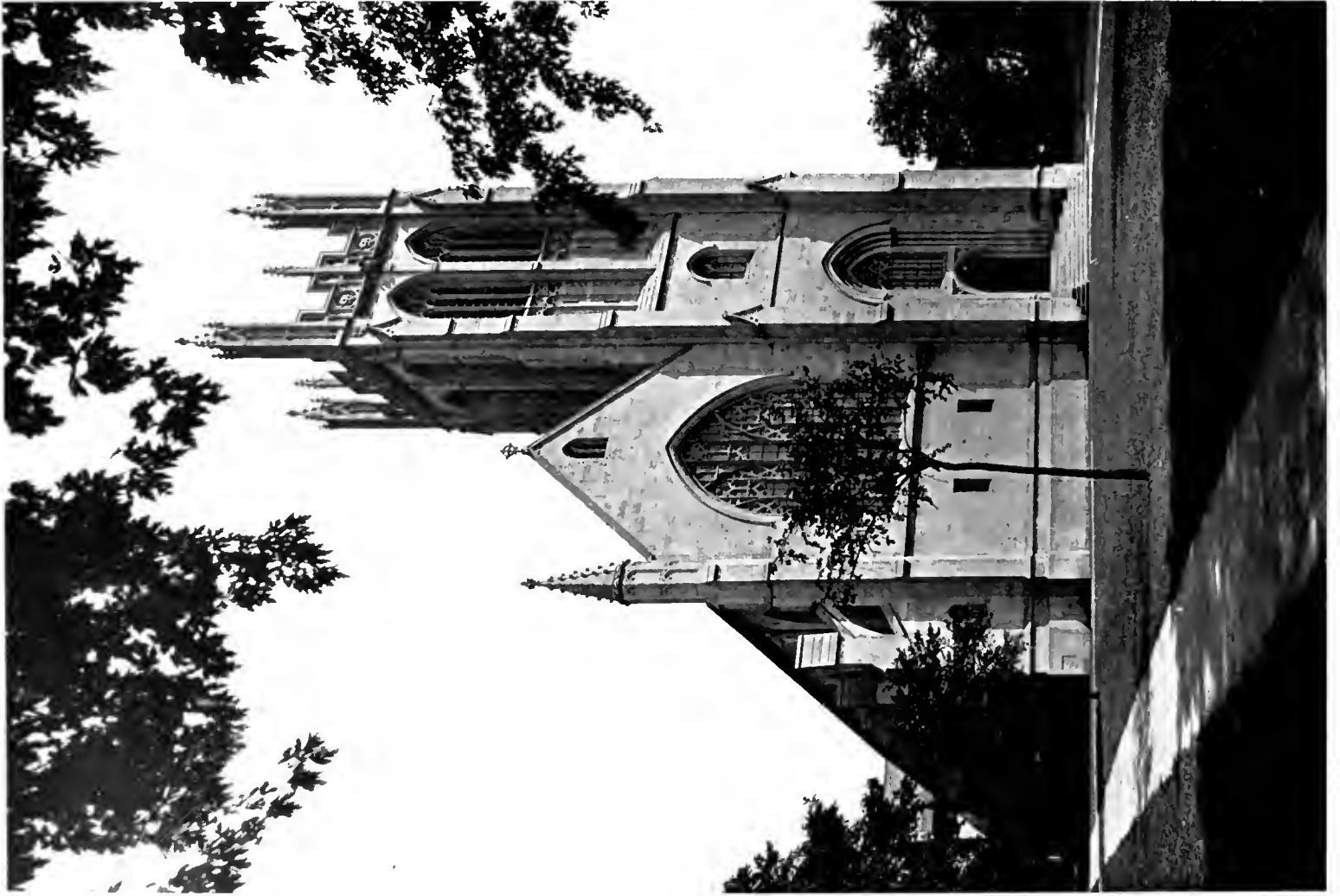
EXTERIOR



INTERIOR

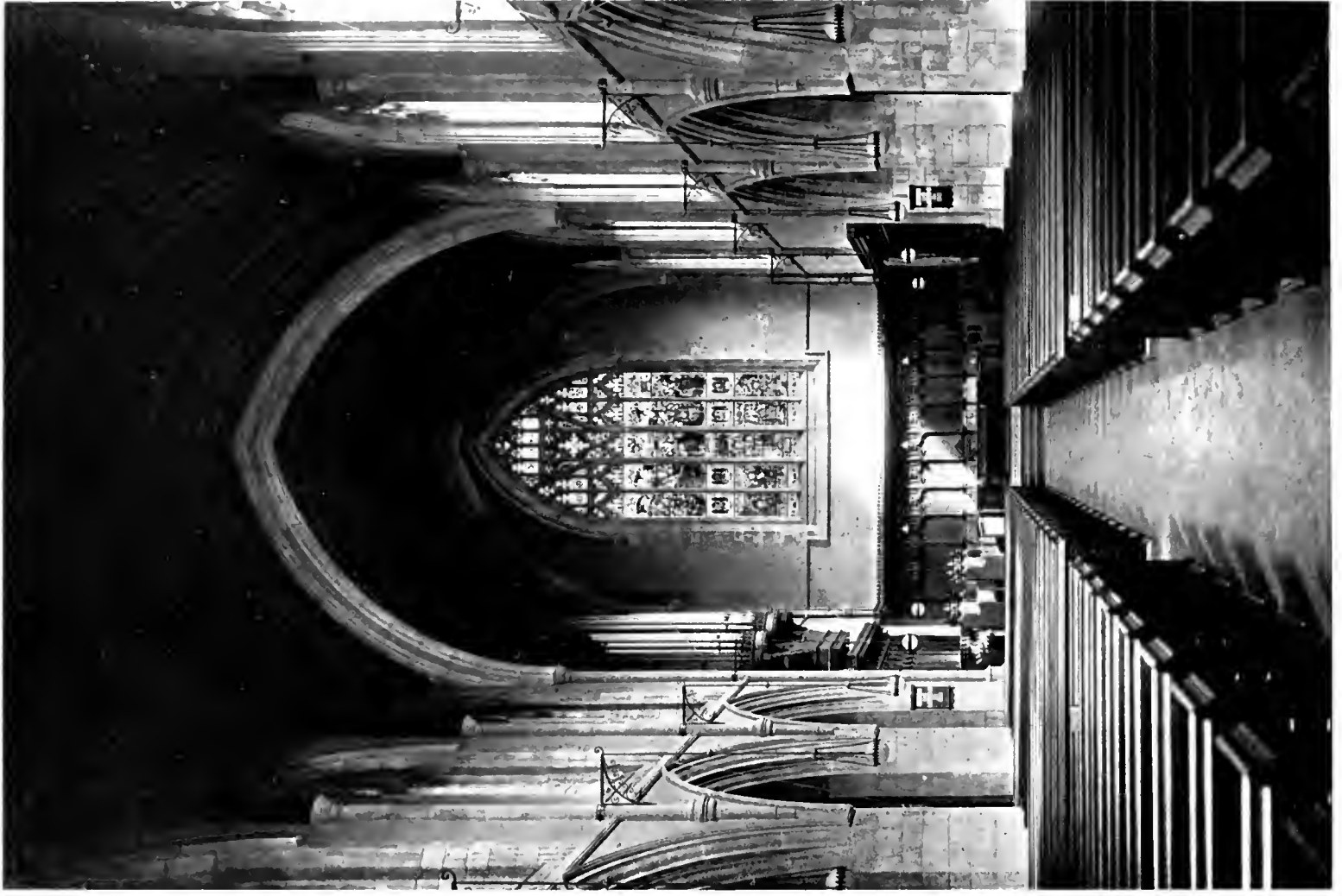


RECENT AMERICAN CHURCHES



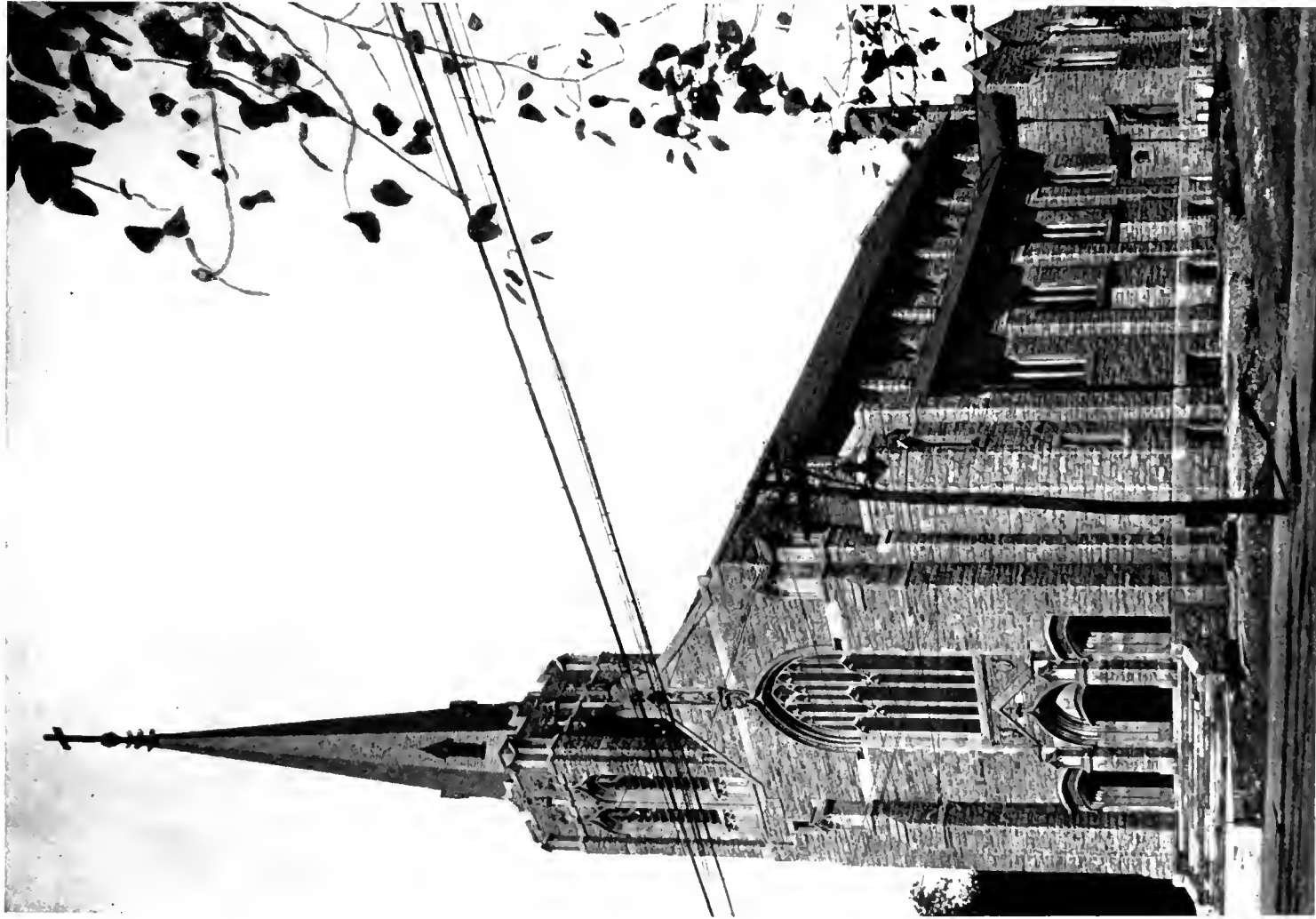
EXTERIOR

ADELBERT COLLEGE CHAPEL, CLEVELAND, O.



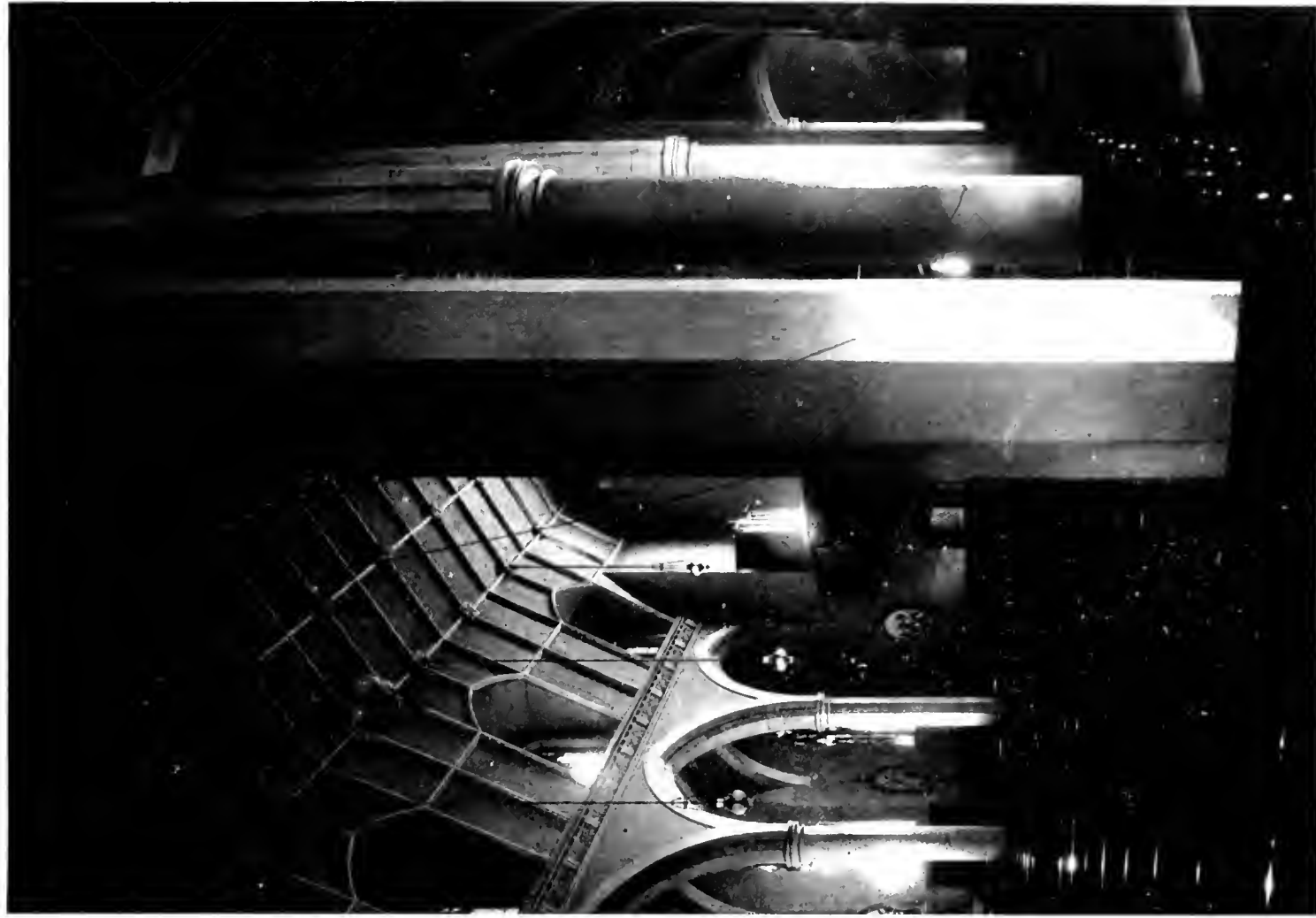
INTERIOR

RECENT AMERICAN CHURCHES



EXTERIOR

CHURCH OF THE HOLY FAMILY, LATROBE, PA.
JOHN T. CONES ARCHITECT



INTERIOR

PLATE XVI



MINOR AMERICAN PUBLIC BUILDINGS

COURT-HOUSES



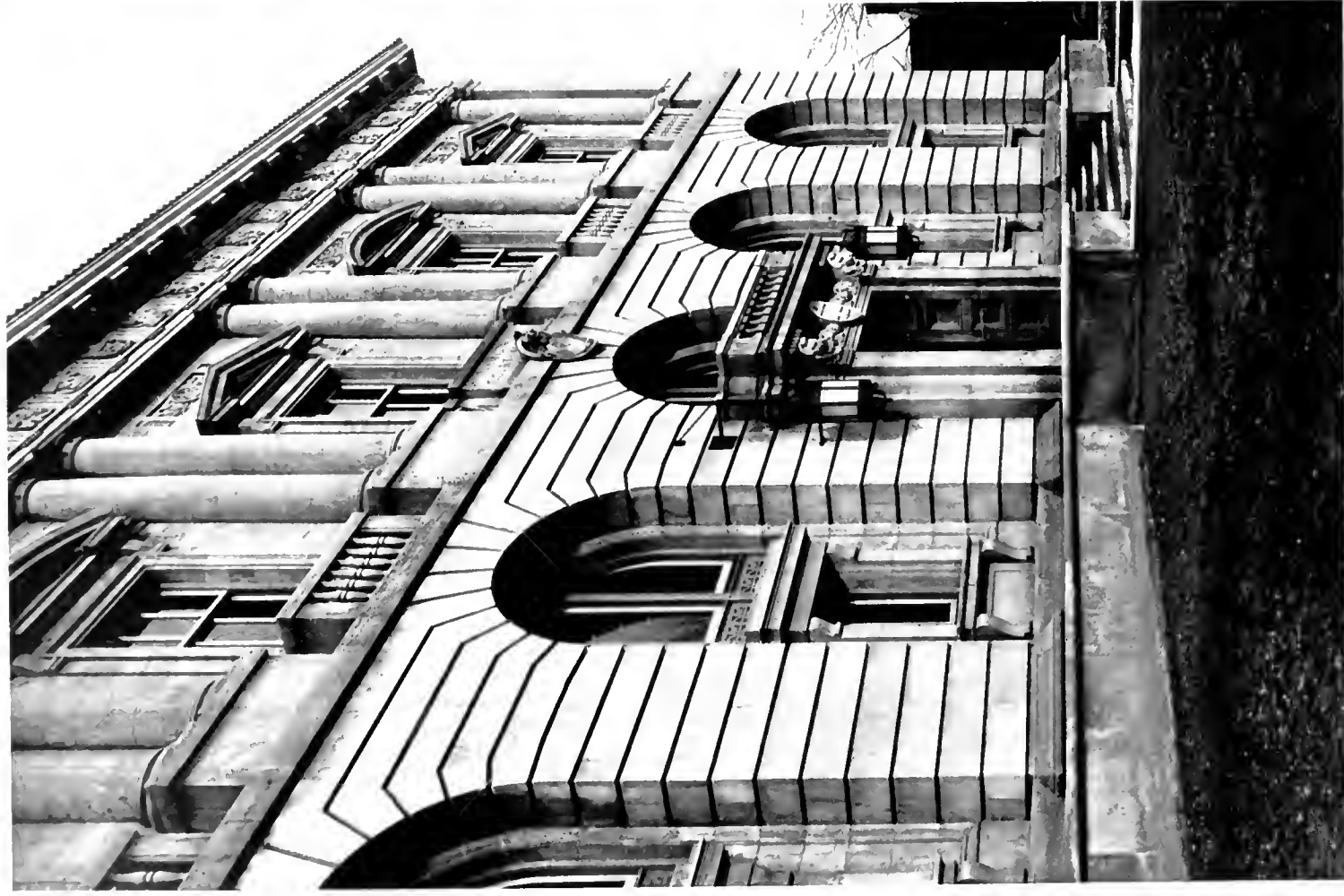
VIEW FROM MAIN STREET



VIEW FROM COURT AND MAIN STREETS

PLATE I

MINOR AMERICAN PUBLIC BUILDINGS
COURT-HOUSES



DETAIL OF MAIN STREET FRONT

PUTNAM COUNTY COURT-HOUSE, OTTAWA, OHIO



DETAIL OF MAIN STREET ENTRANCE

MINOR AMERICAN PUBLIC BUILDINGS
COURT-HOUSES



PLATE III

SECOND STORY CORRIDOR

PUTNAM COUNTY COURT-HOUSE, OTTAWA, OHIO

FRANK L. PACKARD, ARCHITECT; RALPH SNYDER, ASSOCIATE; L. F. BARRETT, ENGINEER



DETAIL OF SECOND STORY ORDER

MINOR AMERICAN PUBLIC BUILDINGS

COURT-HOUSES



INTERIOR, PRINCIPAL COURT-ROOM



FIRST FLOOR CORRIDOR

PLATE IV



MACHINE SHOP FOR MORGAN & WRIGHT, DETROIT, MICH.

ALBERT KAHN, ARCHITECT; ERNEST WILBY, ASSOCIATE



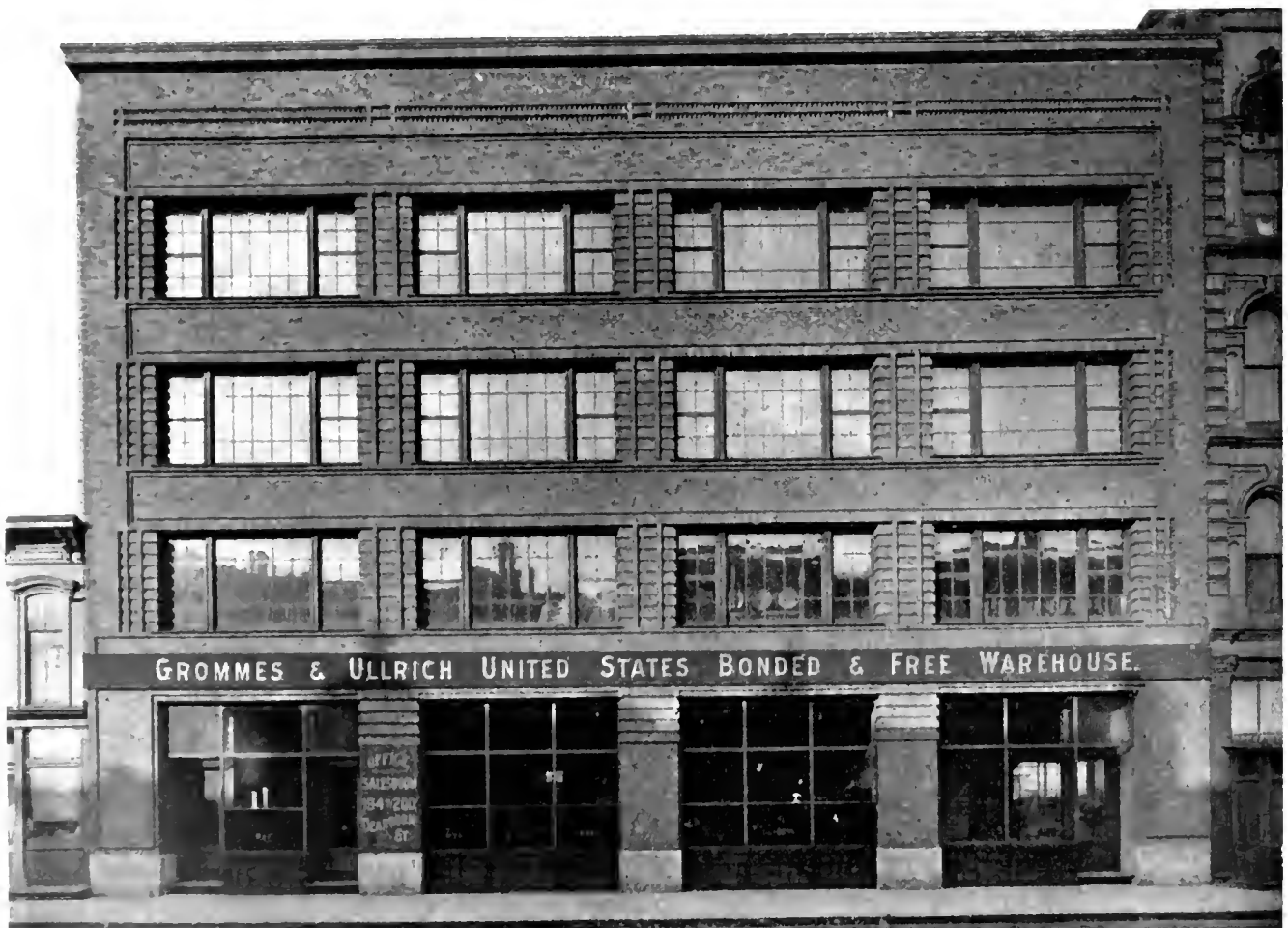
MAIN FACTORY BUILDING, HUDSON MOTOR-CAR CO., DETROIT, MICH.

ALBERT KAHN, ARCHITECT; ERNEST WILBY, ASSOCIATE

PLATE I

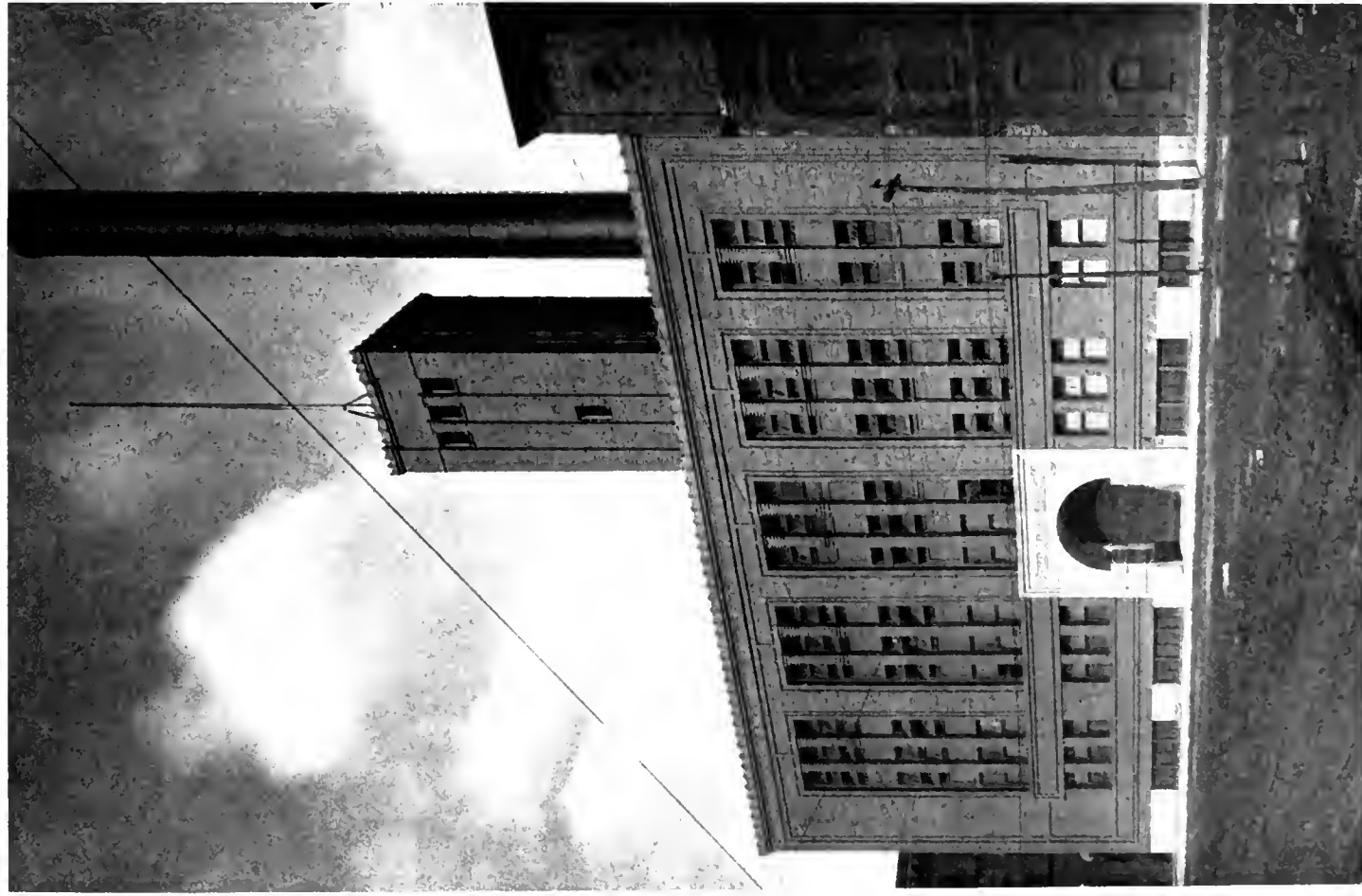


LAKESIDE PRESS BUILDING, CHICAGO, ILL.
HOWARD SHAW, ARCHITECT



WAREHOUSE BUILDING, CHICAGO, ILL.
RICHARD E. SCHMIDT, GARDEN & MARTIN, ARCHITECTS

AMERICAN COMMERCIAL BUILDINGS



SCHOENHOFEN BREWERY, CHICAGO, ILL.
RICHARD E. SCHMIDT, GARDEN & MARTIN, ARCHITECTS

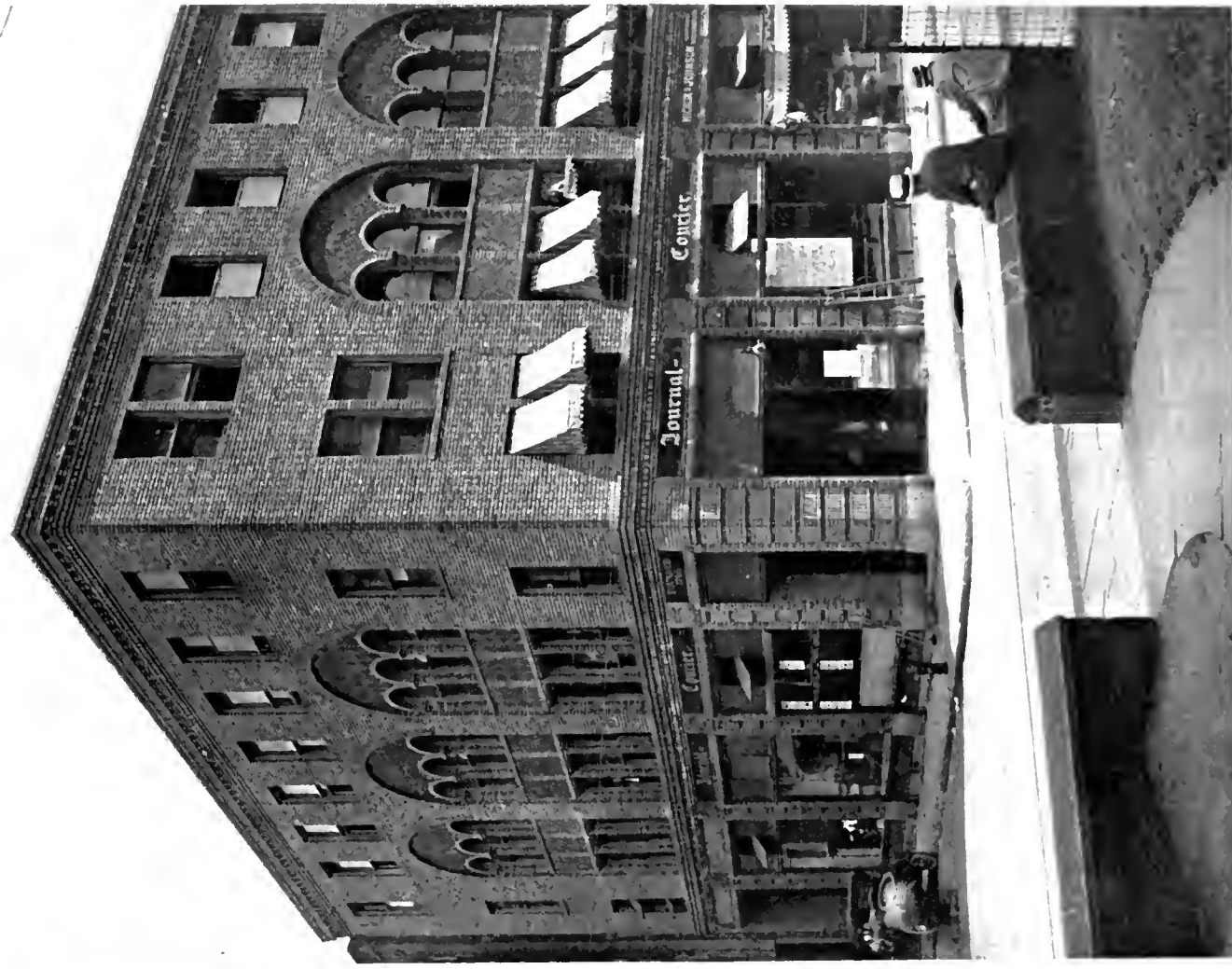


FACTORY BUILDING, CHICAGO, ILL.
RICHARD E. SCHMIDT, GARDEN & MARTIN, ARCHITECTS

AMERICAN COMMERCIAL BUILDINGS



DETAIL OF POWER-HOUSE, NELA PARK,
CLEVELAND, OHIO
WALLIS & GOODWILLIE, ARCHITECTS



JOURNAL-COURIER BUILDING,
NEW HAVEN, CONN.
MURPHY & DANA, ARCHITECTS



EXTERIOR VIEW



INTERIOR OF KINDERGARTEN
LYON SCHOOL, ST. LOUIS, MO.
WM. B. ITTNER, ARCHITECT



FRONT VIEW



REAR VIEW

PLATE XVI



COLFAX SCHOOL NO. 1, PITTSBURGH, PA.

EDWARD STOTZ, ARCHITECT

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Tech
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